

MEDICAL HISTORIES

AND

REFLECTIONS.

VOLUME I.

BY

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Hæc medendi disciplina si cum hypothetica splendore, fastu et magnificentia conferatur, tenuis quidem, imo vilis ac contemnenda videbitur. At in illa nihil salutaris nec vitalis inest, verum mira duntaxat ramorum, foliorumve luxuries, ad aspectum quidem pulchra, sed statim flaccescens, ubi primum eam novitatis gratia tanquam succus defecerit. Hæc vero, cum non ex rebus fictis, commentitiisque constet, non ostentationis, nec inanis, sed quæ in curandis hominibus sita est veræ, gravis, solidæque gloriæ cupida, nec ad ostentandos flores, sed ad uberrimos, et jucundissimos fructus proferendos comparata, in dies magis, magisque crescit, ac vegetior fit.

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TO

RICHARD SHARP, Esq. M. P.

THIS WORK

IS DEDICATED

BY HIS

AFFECTIONATE FRIEND,

THE AUTHOR.

DEDICATION

TO THE

Original Edition of the First Volume.

TO

THOMAS PERCIVAL, M. D.

F. R. S. &c.

DEAR SIR,

THE ceremony of dedication is generally so useless, or so humiliating, as to detract considerably from the dignity of men of letters. But medical authors, having the good fortune to write for their proper judges, are most inexcusable, if they solicit any other patronage than that of professional merit. In giving the ornament of your name to this little book, therefore, I only place my work, under its
natural

natural protector, a medical philosopher, zealous for the improvement of his science, and not less distinguished by liberality of conduct towards his younger brethren of the profession, than by those qualities which have gained him, in so eminent a degree, the confidence of the public.

When I add the consideration, that I have the happiness of addressing a friend, as well disposed to favour, as entitled to decide the fortune of these pages, it is with singular pleasure that I embrace this opportunity of acknowledging myself,

DEAR SIR,

Your most obliged,

and most obedient servant,

MANCHESTER,
Mosely-Street, April 30, 1792.

THE AUTHOR.

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P R E F A C E

TO THE

PRESENT EDITION.

A Republication of these volumes has long been demanded by the Booksellers. It was my wish to have given them a complete revision, and to have added several cases: but unavoidable circumstances have obliged me to contract my plan. Yet as seventeen years have

have elapsed since the first volume made its appearance, during which my opportunities of observation have been greatly enlarged, I could not think of again meeting the public eye, without introducing some degree of alteration and improvement.

In the present state of the profession, a critical view of our actual knowledge of diseases, and of the prevailing methods of treatment, would be a most valuable work, if judiciously executed. To an individual, great benefit must always result, from reviewing his own opinions and practice, from rejudging himself, and endeavouring to improve
on

on his former exertions. This task I have attempted, in the present edition, as far as my leisure would permit, and with all the impartiality of which I am capable.

In some of the discussions, which will be found augmented, I had some temptations to controversy; but I have preferred a convincing display of facts, from regard to the solemn and sacred nature of professional duty. A medical writer, who suffers personal considerations to warp his report of facts, is the worst of criminals.

Physicians should never lose sight of the high descent of their science.

“Primóque,

“Primóque,” says Celsus, “Medendi
 “Scientia Sapientiæ pars habebatur,
 “ut et morborum curatio, et rerum
 “naturæ contemplatio sub iisdem au-
 “toribus nata sit: scilicet his maximé
 “requirentibus qui corporum suorum
 “robora quieta cogitatione, nocturna-
 “que Vigilia minuerant. Ideoque
 “multos ex Sapiencia professoribus
 “peritos ejus fuisse, accepimus.” And
 even the elder Pliny, who has said so
 many severe fine things against me-
 dical men, has assigned an august
 origin to medicine itself; “Diis pri-
 “mum inventores suos assignavit, et
 “cælo dicavit: necnon et hodie mul-
 “tifariam

“tifariam ab oraculis medicina peti-
“tur.” *

It was my original intention to have published a volume of this work, once in three or four years, for which my practice would furnish sufficient materials, and which might have been executed by the regular employment of a moderate portion of time, but in this design I have been disappointed:

Οὐ γὰρ ἓα πόνος ἀλλ᾽, ὃν Ἀργυρότοξ᾽ ἐγείρειν.

Ιλιάδ. Ε. l. 517.

* *Plinii Hist. Natural. Lib. xxix. Prœem.*

P R E F A C E

TO THE

FIRST EDITION OF THE FIRST VOLUME.

THE following pages contain a selection of cases and observations, chiefly drawn from my practice at the Manchester Infirmary. The extended plan of that institution affords the most favourable opportunities to a diligent observer, for ascertaining

B with

with precision many facts in the history of diseases, and for appreciating the value of established methods of cure. Some part of the fruits of such advantages should therefore revert to the public, in acknowledgment of the good it bestows. And something may be added to the stock of science, by unwearied attention to a considerable number of patients, indiscriminately taken, in a great town.

The history of diseases has been much enriched, since the publication of Lord Verulam's Treatise on the Advancement of Sciences; in which, with his usual sagacity, he has recommended full descriptions of the morbid appearances

appearances in every disorder, and careful dissections illustrative of them. From that time, observation has been generally pursued, equally as the road to truth and reputation. Wherever the observer has delivered faithfully the result of a great number of facts, or has possessed that uncommon talent of concluding accurately from a few particulars to generals, science has been improved, and sometimes extended. And several authors preserve a distinguished place in medical libraries, because their descriptions of diseases are accurate and intelligible, although their particular systems, and modes of cure, be in a great measure exploded. But the method, so fashionable

B 2

shionable at present, of publishing single cases, appears not well calculated to enlarge our knowledge, either of the nature or cure of diseases.* On a single instance of success, however faithfully delivered, no point of practice can rest; and although minuteness in descriptions of the natural course of symptoms is recommended by our best systematic writers, since Lord Verulam, yet the great and unnecessary prolixity of modern case-writers could never be intended by them; it is opposite, indeed, to the method of every author, eminent in

* Dr. Sydenham has expressed the same opinion of the inutility of publishing single cases.

this particular. Half a page of Are-tæus, Celsus, or Sydenham conveys more circumstances, and with a more lively impression, to the reader, than many sheets of languid narration.* One would imagine, that Quintilian was prophesying of the latter sort of medical style, in his Chapter De Perspicuitate, “ Est etiam in quibusdam
“ turba inanum verborum, qui dum
“ communem loquendi morem refor-
“ midant, ducti specie nitoris, circu-

* Neque quidpiam magis historiæ naturalis medicæ veritatem, fidelitatemque labefactavit, quam libido Auctorum in eadem exornanda, nevis et elegantibus loquendi formulis, subtilibus speculationibus, copiosis auctorum citationibus, similibusque Lectorum gratia excogitatis. Bagliv. Prax. Med. p. 172.

“meunt omnia copiosa loquacitate quæ
“dicere volunt.”

In the succeeding selection, the cases are generally given as briefly as possible. My principal aim has been, to conclude, by direct induction from a sufficient number of facts, respecting the effects of certain modes of practice.* I have found, by some length of experience, that it is absolutely necessary for a physician, who would do justice to his patients, to

* If some exceptions should appear among these cases, I hope it is chiefly owing to the singularity of the complaint described, or to the necessity of elucidating a particular train of symptoms in a minute manner.

keep

keep a regular account of his success in the treatment of difficult diseases.* Some particular combinations, against which the severest mind cannot always guard itself, or some partial chain of events connected with the exhibition of a medicine, will frequently lead him to false conclusions, if he trust his memory alone, or neglect long to

* Hanc vero remediorum intimiorem cognitionem animo rite concipiendi, vix certior, rector et compendiosior datur via, ac per observationes et morborum historias, quæ simul medicaminum propinatorum usum, genuinam applicationem et certos effectus recensent atque complectuntur. Et hinc demum vera, certa et non fallax de remediorum viribus et efficacia, quæ tantopere in desiderio est, experientia, proficiscitur et medenti innotescit. Hoffman, tom. II. sect. 1. cap. 2.

adjust his *Adversaria*. The instances of good or ill success are likewise often separated by intervals of time, and other pursuits, which deaden or obliterate the force of comparison. By supporting a journal of the treatment and events of certain diseases, on the contrary, a physician supplies himself with data, on which he can reason with confidence, and act with satisfaction, in forming a plan of cure for every new patient.

One of the chief obstacles to accuracy in relating observations, has been the unhappy proneness of medical writers to form systems. Such gentlemen

tllemen would do well to read Mr. Locke's chapters on the abuse of language. A system ought to be nothing more than an arrangement of facts, in convenient order for the memory. So far, systems are neither true nor false; it is only of importance that the facts comprehended be true and well told. Yet to the false idol of system, particular truths, which are our proper objects, have too often been sacrificed. As I have long since resigned all exclusive preference for any system, and contented myself with using whatever each contains applicable to practice, the freedom of these cases will not, probably, be disputed.

I have

I have endeavoured to avoid many quotations.* When any passage of importance occurred to me, connected with a series of my observations, I have endeavoured to recal it. But I have been at no pains to ascertain whether any detached facts had been anticipated. Few claims to originality in medical books can now be supported. The assertion of a spasmodic state of the extreme vessels, in the cold stage of fevers, for example, commonly ascribed to Dr. Hoffman,

* It was smartly and justly said, however, by Gabriel Naudé (who seldom ventured to hold an opinion, for which he could not produce classical authority) that they only are averse to quotations who never expect to be quoted themselves.

was

was first made by Dr. Piens, in his comprehensive Treatise De Febre. But when I have entered on the use of a medicine, on the authority of any writer, I have always been careful to compare his experience with mine, and to make every necessary allowance where a variation appeared. Every man is partial to his own experience, and reckons it sure; and I have used my utmost caution not to urge my conclusions beyond the strength of the facts.

The Essay on the origin of contagious and new Diseases, was written for the Literary and Philosophical Society of Manchester, and perhaps
may

may be misplaced in this volume. Its principal object, indeed, is not entirely medical; but as it suggests a motive for active benevolence, which has been little considered before, and involves many topics connected with one part of the observations, I have ventured to insert it, in hopes that its design may cover its faults.

Before I conclude, I cannot avoid acknowledging my obligations, for the design of this little work, and for several practical hints pursued in it, to the valuable publications of Dr. HOME. In his *Medical Facts and Experiments*, and his *Clinical Experiments, Histories and Dissections*, he has pointed
out

out the only certain road to solid medical knowledge, and has laboured it with success. It is indeed only a fresh opening of the old Hippocratic way; at once decorated and obstructed by the remains of former writers. A man of science will neither condemn them with the ignorant, as rubbish, nor tremble with superstitious fear to remove them, where their place can be better supplied by fresh materials.

MEDICAL HISTORIES

AND

REFLECTIONS.



SINGULAR PARALYTIC AFFECTION.

A STRONG, lusty, middle-aged man was suddenly affected with a tingling pain, succeeded by numbness, in the thumb and fingers of his right hand. In a few minutes, the parts became black, and the pain, extending along the arm and shoulder, darted into the right side of the mouth, just at the angle of the lips. He immediately felt his speech impeded; and he articulated with

with great difficulty, and very imperfectly, till the fit was over, which was completed in the course of half an hour. The paroxysm returned once in two or three hours, observing precisely the same course. His head was not affected, during any part of its duration, either with pain or giddiness; nor had any indications of a paralytic disorder preceded the attack. His bowels were in a regular state. His tongue was white.

I examined his hand with particular care, but could not discover any marks of injury about it; and he did not recollect, after repeated inquiries, that it had sustained any violence. I ordered a blister to be immediately applied to the outside of the fore-arm, in the direction of the radius, with the view of stimulating the principal nerves supplying the fingers, and prescribed a gentle laxative.

The

The effect of the blister was decisive : as soon as it produced an effusion, the fits left him. Some irregular feelings were afterwards perceived in the fingers, but there was no approach towards another paroxysm.

A day or two after the application of the blister, he complained of a slight head-ach, and as his pulse was very full and strong, I ordered him to lose twelve ounces of blood from the left arm. This, with a low diet, and attention to his evacuations, completed the cure, and I believe he has now remained well for near two years.

Might it not be useful, in cases of the Aura Epileptica, to apply blisters near the place where the principal nerves, which go to the part affected, divide?

AN UNCOMMON SPASMODIC CASE,
SUCCESSFULLY TREATED.

E. W. a girl of thirteen, had an eruption over the whole surface of the skin, of an herpetic character, and exquisitely sore. She complained also of violent pain in her stomach, which seized her at uncertain times, and was always followed by general convulsions, about the commencement of which her jaws became locked, and could not be separated till the close of the paroxysm. The duration of the fits was very unequal; generally about three or four hours; but sometimes a succession of them would happen for twenty-four hours, with hardly a perceptible interval.

I gave her small doses of opium, frequently repeated, during her intermissions,

missions, but without effect. Her jaws locked so speedily after the beginning of the fit, that no medicine could be introduced into the stomach during its continuance; and it was evident, that the only hope of a cure rested on preventing the accession, by remedies exhibited at the first signs of its approach. I therefore directed her mother, on the appearance of languor and uneasiness which preceded the pain, to make her swallow a pill, composed of half a grain of opium, two grains of musk, and two of camphor; and to repeat the dose every quarter or half hour (to a certain extent) according to the progress of the fit. After some fruitless trials, in which five grains of opium were given before the jaws locked, finding the patient sink very fast under intolerable and almost constant agony, I determined to try the effect of the combination in its full extent. At the approach of a fit (the

C 2 intermissions

intermissions of which scarcely allowed her time to receive any food) ten grains of opium, a scruple of musk, and a scruple of camphor were thrown in. The consequence was, that the pain was immediately relieved; the jaw did not fix: and the convulsions ceased. The irritation on the surface was so great, that she had very little sleep during the night; and next day the usual signs of a fit appeared, but an equal dose of the pills being administered, the threatening symptoms went off, and left her tolerably easy. After several repulses of this kind, the tendency to renew the paroxysms gradually ceased, and the opiate was proportionably diminished. The eruption decayed in the same proportion with the fits; and in a shorter time than I had expected, her skin was entirely clear, and she was able to work as usual.

I have occasionally inquired after her, and found that she has continued perfectly

fectly well. It is now two years from the attack.

It was very remarkable, that while she used so large a quantity of opium, the effects of which were so powerful on the system, she never slept above four or five hours together, and then only in the night. I have observed the same circumstance in other cases, where opium has been extensively employed. And I believe that, with prudence and attention in augmenting the doses, the fullest benefits may be derived from that remedy, without danger or inconvenience.

It must be observed, however, that fatal consequences have sometimes followed the large exhibition of opium. See a remarkable case in Dr. Percival's *Essays Medical and Experimental*, vol. I. p. 421. When such doses are continued for a length of time, it is always proper to interpose a laxative

once in two days, and where the symptoms are not very urgent, to intermit the use of the opium for twelve or twenty-four hours. The state of the pulse, and every circumstance indicating the state of the vital functions, must be carefully attended to, during such a course; and the practitioner must always remember, in such cases, that while a proper degree of boldness is necessary to effect a cure, temerity may produce an irreparable evil.

REMEDIES OF DROPSY.

I do not remember to have seen any comparison instituted among the various methods of reducing the swellings, by increasing the quantity of urine in this disorder. The whole tribe of diuretics is acknowledged to be uncertain, and often to disappoint
the

the most rational expectations. Practitioners are therefore perpetually in search of new remedies belonging to this class, and are too apt to over-rate the value of such discoveries. An appreciation of the diuretics we already possess would perhaps be more serviceable to medicine, than the addition of any single article of this kind. The following cases contain some facts of this nature, respecting a few of the principal remedies employed in dropsy. A series of observations, continued on the same plan, may perhaps introduce, if not a more successful, yet a safer mode of practice in this formidable disease.

DIGITALIS.

HISTORY I.

Sarah Irlam, upwards of sixty years of age, became gradually anasarcous,

and when I saw her first was so much swelled, as to be totally unwieldy. Her urine was very scanty. She took one grain of digitalis, and in the course of a few hours voided a great quantity of urine. She took another grain next day, which retarded her pulse, and occasioned violent sickness. The swellings were completely reduced in three or four days.

HISTORY II.

John Wilson, aged twenty-eight, had both ascites and anasarca. His belly and legs were excessively distended, and he had a tormenting cough and dyspnœa. He took one grain of digitalis daily. His urine increased in quantity but slowly. He then took a grain and half every day, which produced a large flow of urine, steadily supported, and cured him perfectly, to all appearance, in the course of a fortnight. He will be heard of again.

HISTORY III.

Elizabeth Hall, aged thirty-one, had become anasarcaous by slow degrees, and the swelling began to make considerable progress. She took half an ounce of the infusum digitalis twice a day, without any considerable effect at first; I then interposed a grain of gamboge and half an ounce of cream of tartar, once or twice a week, according to the quantity of urine; continuing the digitalis on the other days. The urine now flowed largely; the swellings receded, and left her entirely in less than three weeks.

HISTORY IV.

John Dawson, aged fifty-five, affected with ascites and anasarca, took one grain of digitalis every day. He was cured of his dropsy in the course of a month, and no complaint remained
but

but a cough, which was removed in a few weeks by the common pectoral medicines.

HISTORY V.

James Heys, aged twenty-seven, was received into the hospital, with anasarca and ascites, excessively swelled, and voiding very little urine. He took one grain of digitalis daily, which promoted a great discharge of urine, and he went out perfectly cured in three weeks.

HISTORY VI.

Elizabeth Atherton, aged nineteen, was affected with a considerable degree of anasarca, and an incipient ascites. She took digitalis in increasing doses, to the extent of four grains a day; once or twice a week, a purgative composed of gamboge and cream of tartar, in the proportions already mentioned, was

was interposed. She was cured in the space of two months.

HISTORY VII.

Ellen Farrar, admitted, April 11, 1791, aged nineteen, had anasarcaous swellings of the lower extremities, and a scarcity of urine. She complained likewise of oppression at her breast, of disturbed sleep, and some degree of orthopnæa. She took one grain of digitalis daily, and occasional doses of gamboge and cream of tartar. She was discharged, cured, on the twenty-fifth of May.

HISTORY VIII.

Margaret Dewrden, aged nine, was admitted, August 8, 1791. The abdomen was greatly distended, and a strong fluctuation was felt on percussion. Her urine was very scanty, her thirst great; with a white tongue, and hurried

hurried pulse, and a teizing cough. She began immediately to take a grain of digitalis every day, in an ounce of infusum gentianæ compositum. The urine increased in a day or two, and continued, for six weeks, to flow largely; her swelling decreased, and she had from two to three stools daily. She was discharged, cured, in the following December.

HISTORY IX.

Elizabeth Bailey, aged twenty-five, was one of the unfortunate persons on whom a large manufactory fell, in winter, 1791. She received a severe blow from a large piece of timber, on the left side of the chest, and was otherwise bruised, in consequence of which she was under the care of a surgeon for some time. When I admitted her on the thirtieth of May, her legs and feet were much swelled; she

she was thirsty, had a cough, and was subject to orthopnoea, particularly in the night. Her sleep was broken; she often complained of oppression and pain in her breast, and of pain about the middle of her left arm, which was always aggravated, when her breast was most uneasy. Her face, at such times was slightly cedematous. Her urine was diminished in quantity. On the third of June, she began to take one grain a-day of digitalis. Her swellings then lessened, and her urine, in general, was much increased. A violent head-ach made blisters behind the ears necessary, on the fifteenth of June; and the pain in her side and left arm became so troublesome, on the third of July, that a blister was then directed to her side. And as she complained of costiveness and flatulence, which even produced the globus hystericus, about the end of June, the stomachic or foetid pills were occasionally given.

given, and a vomit was once directed. But the use of the digitalis was steadily pursued without augmentation, till the twenty-second of July, when all her symptoms were so much mitigated, that I consented to her desire of leaving the house. The swellings were completely reduced, and the pains little, if at all troublesome. I believe she has since relapsed.

HISTORY X.

John Rowbottom, aged sixteen, was admitted on the seventh of March, 1791. His complaint was of considerable duration. The belly was much enlarged, with a sensible fluctuation; the legs and feet anasaralous, and the face cedematous. His urine was deficient, his tongue white, and his thirst excessive. A florid circumscribed redness of the cheeks, accompanied him through the whole disease, and

and he complained of a cough. But his pulse was tremulous and jarring in a most extraordinary degree, and finding, on inquiry, that he had been long subject to distressing palpitations of the heart, I examined its motion with attention. On applying my hand to the usual place, I found a great expansion of the pulsation every way: the apex could be felt distinctly to strike between the eighth and ninth ribs. He now told, that the palpitations had preceded the swellings; that he had often felt pains striking across his breast; and had sometimes discharged a little blood by the mouth. He was put upon a course of digitalis, beginning with a grain a day, and two days afterwards was ordered the usual dose of gamboge and cream of tartar. This did not operate, and I found it necessary to give four grains of gamboge and half an ounce of cream of tartar, which purged him from four to six

times.

times. Half the quantity of gamboge answered afterwards. No remarkable benefit was derived from his medicines for some time. His habit was very costive, and the purgative was so often required, that the regular use of the digitalis was not begun till the middle of April. His swellings then began to give way; he took at last two grains daily. On the fifth of June, he was almost entirely emptied; and was then made an out-patient, at his own earnest request. The dilatation of the heart did not seem to proceed with much rapidity. Little difference could be perceived in it, when he left the house. On the fifteenth of September, he applied to me again, and was re-admitted. His swellings were now much greater, and his difficulty of breathing was very harrassing; the scrotum was distended to such a degree, that the penis was almost buried. His urine was again scanty. The heart now seemed more
dilated,

dilated, and the pulsation felt more remote. His scrotum was immediately scarified very gently, and the following bolus was ordered to be taken at bed-time ;

R. Pulv. Scill. arid. gr. v.

— Jalap. gr. vi.

Calomel. gr. ii. Conserv. Ros. q. s. M.

On the sixteenth, his scrotum was reduced by draining, and his urine was increased. The bolus had purged him thrice. He was every way easier. On the seventeenth, the small incisions on the scrotum were healed ; but as his urine flowed still more freely, I trusted to the bolus, which had been given every night, and generally produced about two stools in twenty-four hours. His swellings then abated, and his legs and scrotum were completely emptied.*

* For the event of this case, see, *Dilatation of the Heart.*

HISTORY XI.

Ellen Wyatt, aged fifty-eight, was admitted on the fifteenth of August, 1791. Her abdomen was distended, and a fluctuation was perceptible. Her urine was scanty. She was ordered the digitalis in the usual manner, with the interposition of the pulvis purgans. She now took two grains of digitalis a-day, her urine increased, and the swelling of the belly was very sensibly lessened. On the fifteenth of September, she complained, for the first time, of swellings in her legs. She was then again ordered the pulvis purgans. On the twenty-second, the swellings of the legs were gone, but she complained of frequent sickness and lassitude, and her pulse was much slower. The digitalis was therefore omitted, and the bark electuary ordered in its stead. On the twenty-ninth, she was more swelled, and her urine was more scanty. She was

was again ordered a dose of the pulvis purgans, and one grain of digitalis a day. She was afterwards put on a course of cream of tartar, sometimes in solution, sometimes combined with gamboge, and is now much better.

HISTORY XII.

James Lees, aged fifty-three, was admitted with ascites and anasarca, on the twelfth of September, 1791. He was ordered one grain a-day of digitalis, and as he was much emaciated, the bark was joined to it. On the nineteenth, his urine was increasing. He was then ordered two grains of digitalis daily; his urine flowed in considerable quantity, his swellings were lessened, and he was discharged, cured, on the twenty-fourth of October.

HISTORY XIII.

John Wilson, whose first attack was narrated in history the second, applied

to me again, on the fifteenth of June, 1790. His swellings were now as great as ever, and his countenance denoted greater anxiety. I gave the digitalis again, in such doses as to produce a strong narcotic effect, without being able to increase his urine. A variety of other diuretics, tried in succession, proved equally unsuccessful. The event of the case I do not know, for he was soon removed to the work-house.

HISTORY XIV.

William Williams, aged sixty, admitted February second, had been ill for some time. He was afflicted both with anasarca and ascites. He made very little water; his countenance was cadaverous, his pulse low; and he often complained of pain in his right side, striking upwards to the top of the right shoulder. He took the digitalis in increasing doses, without any effect,
for

for some weeks. When he took four grains a day, his pulse was rendered sensibly slower, and he became very drowsy. I therefore stopped at that quantity, and continued the same dose every day for a week longer. But the narcotic effects were so continued, that I durst go no farther. His urine was never increased by it. The sequel of this case comes under another remedy,

HISTORY XV.

Betty Williamson, aged thirty, admitted Nov. 9, 1789, was anasarcaous in her lower extremities, and there was reason to fear the approach of ascites. She had a violent cough, and a large expectoration, which had some appearance of pus. She took the digitalis as usual: it produced in a few days, violent sickness and vomiting, but did not lessen her swellings. I therefore discontinued its use.

HISTORY XVI.

Ellen Jones, aged sixty, admitted in March, 1789, was anasaralous, with the usual attendance of cough and thirst. She took the digitalis, like the rest, for a month, without any sensible difference in the state of the urine or swellings.

HISTORY XVII.

Job Bowers, aged thirty-seven, admitted Dec. 27, 1790, of a cachectic appearance, was affected with ascites and anasarca, attended with the usual symptoms. He began with a grain of digitalis, and proceeded to two grains a day, which he continued to take during a fortnight, without relief. It was then discontinued.

HISTORY XVIII.

William Waters, aged twenty-three, was admitted on the twenty-sixth of September,

September, with an incipient ascites. He took the *infusum digitalis*, to the extent of five or six spoonfuls a-day, by a gradual augmentation. This quantity brought on a large flow of urine, and his belly diminished. He was much emaciated, when I first saw him, and had a caries in the bones of the carpus of the right hand. In the middle of October, he was attacked with feverish symptoms, and complained of a sore throat. On inspection, a dark-coloured inflammation appeared in the fauces. He was ordered bark, and astringent gargles, and soon got better; but he looked extremely ill, his belly filled again, and his lower extremities became anasarcous. The *digitalis* was now repeated, and a tonic course joined with it. His urine again flowed largely, but the swellings were not lessened. In the beginning of November he was attacked by a sudden pain in his bowels, on which the former course was

suspended, and opiates were given. The pain went off in the course of the day, and the swellings disappeared. But a few days afterwards, his right thigh became erysipelatous, and in spite of the liberal use of bark and wine, the affection extended to the groin, and ended his existence on the eleventh of November. I could not obtain leave to inspect the body.

HISTORY XIX.

Mary Rowley, aged thirty, admitted February 12, 1791, had the usual signs of ascites. She took two grains a-day of digitalis for near a fortnight. She grew worse, and the remedy was dropped.

HISTORY XX.

Mary Sudwoth, aged twenty-one, admitted March 14, with evident symptoms.

toms of ascites and anasarca, took two grains of digitalis a-day, for a week, but became worse, and the course was changed.

HISTORY XXI.

Elizabeth Oldham, aged forty-eight, admitted June 20, 1791, with ascites, took the digitalis with the pulvis purgans, in the manner already described. She found no relief, and in a month the remedy was discontinued.

HISTORY XXII.

Elizabeth Williamson, aged sixty, admitted July 11, 1791, ill of ascites, was ordered the digitalis and pulvis purgans as usual. She took them for a fortnight, but without benefit.

HISTORY XXIII.

George Newton, aged seventy, admitted January 24, 1791, with ascites
and

and anasarca, took the digitalis as usual. His urine did not increase; but symptoms of gangrene appeared in the lower extremities, and he died on the thirtieth of the same month. On dissection, the abdomen was found full of water; the liver appeared soft and pale; the pleura, on the surface of the lungs, bore marks of inflammation, and adhesions were formed to the parietes of the cavity: there was a considerable quantity of water in the thorax.

HISTORY XXIV.

William Taylor, aged nineteen, admitted May 30, 1791, with ascites and anasarca, was so much loaded with water, as to be in constant danger of suffocation. He was put on a course of the pulvis purgans and digitalis, but without effect. The accumulation increased; his cheeks and lips became livid;

livid; and it was necessary to tap him, to prevent instant death. Accordingly the operation was performed on the third of June, and a very large quantity of water drawn off. He appeared somewhat easier the next day, but languid. He began to fill again; mortification took place in the scrotum, which was greatly distended; and he died on the seventh of June.

I have no notes of the dissection, but I recollect that the liver and kidneys were greatly diseased. The chest was full of water. A singular circumstance attended the operation, of which I have prevailed on Mr. Simmons, the operator, to draw up an account. It follows, in his own words,

“ I tapped William Taylor for an
“ ascites, at the request of Dr. Ferriar,
“ in the usual part of the abdomen;
“ carefully examining the part where
“ the

“ the trocar was to be introduced,
“ to avoid wounding any considerable
“ blood-vessel. A large quantity of
“ watery fluid was evacuated, and to-
“ wards the conclusion of the discharge
“ it was tinged of a reddish colour.
“ On withdrawing the canula, I was
“ much alarmed with the appearance
“ of a considerable flow of blood,
“ expecting no less than the immediate
“ death of my patient, from his very
“ debilitated state previous to the opera-
“ tion. The colour, however, resem-
“ bled that of venous blood, and I
“ found the effusion was stopped by com-
“ pression. Styptic applications were
“ therefore made, and the compression
“ was continued for some time, which
“ had the desired effect.

“ On inspecting the body after
“ death, which happened in a few
“ days, I had the satisfaction to find,
“ that not the smallest quantity of
“ blood

“ blood had been poured out into the
 “ cavity of the abdomen ; and that
 “ neither inflammation nor gangrene
 “ had come upon the wound from the
 “ use of the astringent application.
 “ The cause of the hæmorrhage was
 “ now apparent. The epigastric artery
 “ with its accompanying vein running
 “ out of their usual course, the latter
 “ had been divided, and so near to the
 “ former, that there was not more
 “ than the space of a line between the
 “ wound made by the trocar and the
 “ coats of the artery.

“ This case has induced me to think
 “ the operation of the paracentesis of
 “ the abdomen not so trifling as it is
 “ generally believed to be ; and the
 “ late observations on this subject by
 “ Dr. Smith and Mr. Ford, contained
 “ in the second volume of the Medical
 “ Communications, corroborate opinions
 “ I had formed previous to my seeing
 “ that publication.

“ Chirurgical

“ Chirurgical writers have differed
“ considerably in their opinions of the
“ proper part for making the puncture
“ in cases of ascites. Celsus recom-
“ mends the water to be evacuated
“ at the navel, or nearly four fingers
“ breadth below it, inclining to the
“ left side, and when performed in the
“ latter manner, he advises it to be done
“ with circumspection, lest a blood-
“ vessel should be opened.

“ Succeeding writers deviated from
“ this ancient practice, and made the
“ puncture, when below the navel,
“ either on the right or left side, and
“ at the distance of the breadth of
“ three or four fingers; and, sometimes,
“ at the same distance immediately be-
“ low the navel. Deviations from these
“ modes of practice have been intro-
“ duced by the more modern surgeons;
“ for some, apprehending the ancient
“ practice to be laid down without
“ attention

“ attention to the distended state of the
“ cavity of the abdomen, recommend
“ it to be done at the distance of seven
“ or eight fingers breadth, descending
“ obliquely from the navel, which they
“ say will not be more than equal to
“ four when the belly is returned to its
“ natural state. This seems to agree
“ with the directions given by chirur-
“ gical writers of the present day, who
“ order the opening to be made midway
“ between the spine of the ileum and
“ the umbilicus.

“ As the present mode of practice is
“ liable to such serious consequences,
“ and is recommended early in the
“ disease, not only to relieve present
“ distress, but with a view to aid the
“ power of internal remedies, it becomes
“ of importance to the art of surgery,
“ if possible, to amend it.

“ The

“ The fluid has been evacuated at
“ the navel, only when there has been
“ a particular swelling there, and an
“ evident fluctuation under the thin
“ integuments.

“ It has been performed at the dis-
“ tance of four fingers breadth from
“ the navel, on the right or left side,
“ as circumstances indicated, to avoid
“ the recti muscles; but in the dis-
“ tended state of the abdomen it would
“ nearly get into them, and, there-
“ fore, do just the reverse of what
“ was intended. From particular opi-
“ nions respecting the disease, it was
“ proposed by Albucasis, Avicenna
“ and others to make the opening at
“ the same distance directly below the
“ navel; but this was afterwards dis-
“ carded from physiological opinions
“ respecting the nature of tendons.
“ From the most attentive considera-
“ tion I am able to give the subject,
“ I am

“ I am, notwithstanding, of opinion
 “ that this is the part in which it
 “ ought to be performed. In this way
 “ common integument, tendinous ex-
 “ pansion, and the peritoneum only,
 “ are, in all probability, divided; and
 “ in the present mode, if rightly per-
 “ formed, I think also no other parts
 “ are divided, for I agree with Le
 “ Dran that the middle space between
 “ the navel and the crista of the os
 “ ileum which is exactly between the
 “ fleshy part of the oblique and trans-
 “ verse muscles, or what we call the
 “ linea semilunaris, ought to be the part
 “ perforated.

“ In the case related, the puncture
 “ was made in this part, upon the edge
 “ of the above-mentioned muscles.

“ The epigastric artery comes off
 “ anteriorly from the external iliac,
 “ and running obliquely upwards,
 E “ reaches

“ reaches the posterior part of the
“ rectus muscle, about two or three
“ fingers breadth above the os pubis,
“ in the direction of which it is con-
“ tinued till it forms an anastamosis
“ with the mammaria interna. This
“ is its usual course: but as nature is
“ often sportive in the distribution of
“ arteries, it is adviseable to guard
“ against her incidental variations as
“ much as we can. Now we know
“ from experience, that it sometimes
“ does run in the part where the trocar
“ is usually introduced. And the part
“ itself must somewhat vary, according
“ to the opinions of different men, the
“ language not being absolutely defi-
“ nitive. But, if it is performed in
“ a direct line, at a given distance
“ below the navel, every man of com-
“ mon sagacity must perform it with
“ the greatest exactness; and I do not
“ know of the artery ever having been
“ observed exactly in that direction.

“ It

“ It is said that the wound heals
 “ better, if the perforation is made
 “ where there are some muscular fibres ;
 “ but if there is sufficient muscle to
 “ expedite that process, there must also
 “ be blood-vessels, which being opened,
 “ might occasion the loss of more blood
 “ than a patient under such circum-
 “ stances could bear. And, besides,
 “ from the authorities above quoted,
 “ as well as that of Fabricius ab Aqua-
 “ pendente and our own knowledge,
 “ much need not be apprehended on
 “ that account.

“ I propose then, that the operation
 “ shall be performed in this part in
 “ preference to that where it is usually
 “ done, in all cases where there is a
 “ general distention of the cavity of
 “ the abdomen from a watery fluid,
 “ and there are no symptoms to war-
 “ rant an opinion of any of the viscera
 “ being so much enlarged as to be in

“danger of injury from the instrument.”

CREAM OF TARTAR.

I have always directed this remedy to be given in Dr. Home's method: from half an ounce, dissolved in ten ounces of water, to an ounce, or an ounce and a half daily.

HISTORY XXV.

Mr. C. about forty years of age, consulted me for a complaint in his breast. He was sensible of constant weight and oppression; he slept ill, and frequently awaked in terror; he had a slight cough; his breathing always became difficult, when he walked up an ascent; his urine was scanty; and he had, at times, a pain about the middle of the left arm. His legs were
slightly

slightly anasarcaous; his face was cedematous, and his countenance anxious. He was thirsty, and had a frequent, irregular pulse. I ordered him the cream of tartar, to be taken next morning. I saw him in the afternoon of the next day, and found that his urine had increased from about half a pint in the day, to a pint and half. He staid in town a day or two longer, that I might observe the effect of the medicine, and finding his urine flow more and more freely, he returned to the country, with a resolution to try the plan with perseverance. He had used a variety of medicines before, without any advantage. I heard from him often, and for several months received accounts of a gradual amendment. His urine, for some time, came off in greater quantity than natural; afterwards it returned to its usual state. All his uneasy symptoms disappeared, and, as he wrote me, after being un-

able to creep above a mile, he could now walk three or four miles, over any kind of ground, without inconvenience. This agreeable change continued for near twelve months, but at the end of that time, his symptoms returned. He had recourse again to his cream of tartar, but I do not know with what immediate effect. I heard of his death soon after.

HISTORY XXVI.

A poor woman, who had become dropsical and asthmatic by hard labour and ill usage, applied to me in 1788. I have no notes of the case, but I remember that she took the cream of tartar, and that her swellings were, for the time, entirely removed.

HISTORY XXVII.

Peter Nield, aged forty-five, admitted November 11, 1789, was anasarcous.

He

He took the cream of tartar, and soon began to void a large quantity of urine, and to perceive a decrease of the swellings. As the medicine operated much by stool, however, he became very feeble, and I found it necessary to support him liberally, at the same time, with tonics. He was discharged, cured, in a few weeks.

HISTORY XXVIII.

Thomas Mather, aged twenty-five, was affected with erysipelas and swelling of both legs, in October, 1791. When the eruption went off, he began to swell generally. At the commencement of my attendance, November eighteenth, his legs were excessively distended, his belly was very large, and his face œdematous. He had taken some purges of jallap with mercury, and felt somewhat easier, but his swellings were increasing. I ordered him the

cream of tartar. Next day, he had several watery stools, and his belly was less. On the twenty-second he continued to have four or five watery stools a-day, he passed more urine, and his belly was fallen in circumference several inches. He now walked about with ease and alacrity. On the twenty-seventh, he had only one or two stools in the day, and made but little water, yet his swellings continued to decrease. The cream of tartar was therefore increased to six drachms a-day. It seldom produced above two stools a-day; his swellings went entirely off, and he was able to go to work again on the thirteenth of December.

He relapsed from imprudence, and came under my care again in the course of a few weeks. He recovered by a repetition of his medicine.

HISTORY XXIX.

Catherine Duny, aged twenty, admitted about the beginning of January, 1790, had ascites; and towards evening, had some degree of swelling in her ancles. She was put on a course of cream of tartar, and was discharged, cured, in three weeks.

HISTORY XXX.

Ann Wagstaff, aged twenty-five, anasarcaous, admitted January 25, 1790, took the cream of tartar, and was dismissed, cured: my notes do not shew at what time.

HISTORY XXXI.

John Hopwood, aged forty-eight, had been subject for several years to severe pain in the head, and occasionally to giddiness. About a year before
he

he consulted me, he began to complain of a dry cough, which increased till the beginning of winter, 1791, when I saw him. His legs were then much swelled, and pitted on pressure; his abdomen was considerably enlarged, with a considerable degree of fluctuation; his urine was scanty, he complained of thirst, and had a very troublesome orthopnæa. I put him on the use of cream of tartar. In three days, he made half a pint of urine more in the day, and his swellings decreased. At the end of a fortnight, the swellings were nearly gone, the cough and orthopnæa greatly relieved, and every appearance promised a cure. But the pain in his head, which had been easier for some time, suddenly returned, and he became blind. At the same time, his extremities were affected with a degree of paralysis. He was now so much discouraged, that he refused to take any more medicines, and sunk by
degrees

degrees till he expired, with a livid countenance, and every mark of an oppressed brain. I could not obtain permission to inspect the body.

HISTORY XXXII.

Elizabeth Monk, aged forty-five, had a dry, vexatious cough for above three years. She had so great a degree of orthopnæa, that she was commonly unable to lie down in bed; her urine was scanty; her face often swelled, and at such times her cough and difficulty of breathing were most troublesome. She often felt an uneasy tingling in her left arm and hand. There was a strong expression of anxiety in her countenance. I ordered her the cream of tartar, which produced four or five loose, watery stools a-day, and an almost immediate increase of urine. Her symptoms were gradually relieved, and at the end of a month, she

she is free from every complaint, excepting some degree of cough.

HISTORY XXXIII.

Jeremiah Wood, aged forty-two, admitted April eighteenth, anasarcaous, took cream of tartar without any sensible advantage. He died on the twenty-sixth of the same month.

On dissection, the chest was found full of water, the lungs adhered strongly to the left side of the thorax, and the pericardium was firmly united to the heart.

BACHER'S TONIC PILLS.

I believe practitioners in this country have had little experience of this remedy. Dr. Cullen says, in his *Materia*
teria

teria Medica, that he had never heard of any person who thought well enough of the formula to use it. Prejudice, however, is never to be encouraged: in the scarcity of good diuretics I have been induced to employ this highly recommended formula, and have found no reason to think lightly of it.

HISTORY XXXIV.

William Williams (see History XIII.) after discontinuing the digitalis, began to take nine of the tonic pills daily. They produced an immediate flow of urine, and several watery stools every day. His belly diminished considerably in size, but his legs, during the course of digitalis, had become so much distended, that a rupture of the skin took place in each, and the water drained away in great quantities. He now emptied a-pace, but grew weaker from

from day to day. The pills were continued, but a quantity of wine and of tincture of bark was allowed, sufficient to support his pulse, and the pills were managed so as to prevent any considerable purging. The openings in his legs preserved a healthy inflammation round their edges; but no art could relieve the languor occasioned by withdrawing the pressure of the water; and he died as soon as he was nearly freed from the swellings.

HISTORY XXXV.

Sarah Hartley, aged twenty-nine, came under my care, after she had been during three months the patient of another physician. She was affected with ascites and anasarca; her urine was scanty; and her countenance was livid. She took six of the tonic pills daily; they produced an increase of
urine,

urine, and in three weeks occasioned a considerable diminution of the swellings. But she became languid, her strength seemed to decay with the disease, and on December second, she was seized with a looseness, at the approach of which the pills were laid aside. Astringents and opiates were now employed, but to little purpose. The Diarrhæa was attended with a fixed pain in the bowels. She sunk gradually, and died December 6, 1790.

On dissection, some turns of the ileus were found affected with a dark red inflammation. The liver was soft and pale; the kidneys were enlarged, and suppurations appeared in the pelvis of each. There was water in the chest, and adhesions were formed between the pleura and the surface of the lungs.

HISTORY XXXVI.

Alice Wrigley, aged fifteen, was admitted, May ninth, with anasarca, and an incipient ascites. She took three of the tonic pills thrice a-day. They increased her urine to a considerable quantity; the swellings abated, and she was discharged, cured, on the sixteenth of the following October. Her attendance had been irregular.

HISTORY XXXVII.

Anne Waring, aged twenty-three, had ascites and anasarca. She took fifteen of the tonic pills every day, which produced a great increase of her urine, and she was discharged, cured, in four months. She had been very irregular in taking the medicine, and once absented herself from attendance,
and

and relinquished the use of the pills, for three weeks together.

HISTORY XXXVIII.

Betty Clay, aged forty-six, had ascites. Her urine was very scanty. She took for eight months, thirty-five drops of spiritus ætheris nitrosi, thrice a-day, with the effect of an increase in the quantity of urine, and a slow abatement of the swelling. But this effect at length ceased, and her legs began to swell. I then ordered the tonic pills. When she began to take fifteen a-day, her urine again flowed largely, and the swellings were reduced. She then took twenty pills daily, with a farther abatement of the symptoms. At present, the swelling of the abdomen is nearly gone, and her only remaining complaint is a troublesome cough.

HISTORY XXXIX.

Job Bowers (History XVIII.) took the tonic pills, for some time after the digitalis was given up, but without relief.

HISTORY XL.

Mary Winterbottom, aged fifty-eight, admitted August 15, 1791, with ascites, began to take twenty of the tonic pills every day. The effects were a considerable increase of urine, and many watery stools. She diminished in size very regularly, and was discharged, completely cured, on the eighteenth of October.

 PULVIS DOVERI.

This remedy has been used with success in dropsical cases, by Dr. Hamilton

milton of Edinburgh; some instances of which I saw, during my attendance on him at the Infirmary of that city.

HISTORY XLI.

William Kay, aged twelve, admitted November 9, 1789, had become anasarcaous in consequence of exposure to cold. He was ordered to use the pediluvium, and afterwards to take a scruple of Dover's powder. The first dose did not succeed, owing to some mismanagement of the patient. A second dose was given, which sweated him profusely, and reduced his swellings. He was then directed to take the bark, and was discharged, cured, in less than a week.

GAMBOGE WITH CREAM OF TARTAR.

HISTORY XLII.

Job Bowers (History XVIII. and XXXIX.) when oppressed with ex-

treme difficulty of breathing, took from one to two grains of gamboge, with half an ounce of cream of tartar, every two or three days. It always produced from four to six watery stools, lowered his swellings, and relieved his breathing. Whenever the exhibition of his purgative was delayed beyond the usual time, all his symptoms were greatly aggravated. At length, however, his urine was totally suppressed, which was soon followed by death. I did not obtain permission to open the body.

GAMBOGÉ WITH MERCURY.

HISTORY XLIII.

Hannah Wolstenholme, anasarcaus, took six grains of calomel, with one grain of gamboge, twice or thrice a-week, according to the degree of evacuation

evacuation produced. It increased the quantity of urine immediately, and she was completely well in a fortnight.

CALOMEL WITH SQUILLS.

HISTORY XLIV.

Thomas Jelly, aged thirty-eight, was admitted August 15, 1791. The abdomen was greatly distended, with evident fluctuation, and his lower extremities were anasarcaous. He passed very little urine; had a constant difficulty of breathing, dry cough, and a tormenting thirst. He took some of the common diuretics,* without relief, till the twentieth. He was then ordered the pulvis purgans, which gave him some motions, but did not increase

* P. Digitalis among the rest.

his urine. On the twenty-second he was ordered the following bolus :

R. Sapon. Hispan. ℥i.

Pulv. Scill. Arid. gr. x.

Calomelan. gr. iij.

Opii gr. j.

Conserv. Ros. q. s. Misce.

This increased his urine immediately, and purged him gently. Between the twenty-third and twenty-eighth, he sometimes passed upwards of three quarts of water in twenty-four hours. At the latter period, the purgative effect was so far lost, that it was necessary to order him the pulvis purgans. His mouth now became affected, and on the thirty-first, at which time he had taken exactly twenty-one grains of calomel, his gums and the inside of the mouth were ulcerated, and a spitting came on. He was then much reduced in size. On the thirty-first his bolus was repeated, without the calomel. While the ptyalism lasted, his

his water came off freely, but when his mouth began to heal, the quantity decreased, and the swellings returned. At this period his appetite was voracious to such a degree, as to make him uneasy in his mind. He spoke of it several times with anxiety. On the eighth of September, his mouth was well, and he was nearly as bulky as ever. The calomel was therefore again added to the bolus; he was allowed porter, and put upon full diet. On the sixteenth he had taken seven boluses, containing exactly twenty-one grains of calomel. He had always been purged at least three times a-day by the bolus, and had parted with great quantities of water. His mouth was now very sore, again: the bolus was therefore omitted; and in two days, a considerable degree of salivation took place. But the swellings of his legs were completely removed, and his belly was reduced very nearly

to its natural size. On the twenty-third his mouth was still extremely sore, and as the weather became cool, he was ordered the electuarius e sulphure. On the twenty-seventh, his mouth was somewhat easier, but he still spit much, and was very weak. He was then allowed four ounces of wine a-day, in addition to his porter.

On the thirtieth, he was seized with a violent looseness, the spitting decreased, and his belly enlarged again. The urine was now much less in quantity. He was ordered astringents with laudanum. The next day, his purging was stopt, and the abdomen so far returned to a natural state, that though it appeared full, he could retract it as completely as a man in health usually does. His mouth was perfectly well in a few days, but he continued weak. In the first week of October, he was seized with a violent cough,
and

and complained of universal pains. The looseness returned, and his belly increased again in size. On the tenth, he was so much altered that it was evident death was approaching. He complained that his stomach would retain nothing; his pulse became low, and faltering, and he had frequent cold sweats. On the eleventh, he was insensible, and seemed to be dying, but he lingered in that state, till the morning of the thirteenth, and then expired.

The body was opened next day. A quantity of water was found in the cavity of the chest, chiefly, on the right side. The right lobe of the lungs adhered strongly to the pleura, and there were marks of inflammation on its surface. There was an adhesion also on the left side. The pericardium contained a good deal of water, and adhered to the forepart of the right ventricle; the heart was larger than natural.

A great

A great quantity of clear, brown-coloured water was found in the abdomen. The liver was enlarged, hardened, and disposed to scirrhusity. The pancreas was indurated, and altered in its texture. The stomach was uncommonly small, and the blood-vessels on both curvatures were much distended; near the cardia, it was eroded by the gastric juice. The omentum was preternaturally red. Several turns of the ileus appeared discoloured, and on opening them, the villous coat was found greatly inflamed. This inflammation was traced into the transverse arch of the colon. The spleen was sound; the left kidney was larger than natural, but otherwise sound. The right kidney was in a natural state.

NICOTIANA.

NICOTIANA.**HISTORY XLV.**

Mary Coxe, aged twenty-nine, complained of pain and swelling on the left side of the abdomen; of thirst, and scarcity of urine. On examination, a large tumor on that side appeared, extending from the spine of the os ileon, almost to the ossa pubis. The edges were well defined, but the surface, though unequal, was yielding, in some degree, and gave the impression of a contained fluid. Before I saw her, she was ordered from twenty-five to thirty drops of the infusum nicotianæ twice or thrice a-day, with a purgative electuary, composed of gamboge, jallap and cream of tartar. This increased the quantity of urine, but produced no effect on the swelling. I ordered
a drachm

a drachm of the unguentum cæruleum to be rubbed into the groin and thigh on the side affected, every other night, and twenty-five drops of spiritus ætheris vitriolici to be taken, four times a-day, omitting the former medicines. In the course of four or five days, there was a sensible abatement of the swelling, and her urine continued to flow freely. The spiritus ætheris vitriolici happened to be omitted, for some reason, and she found herself worse. It was then repeated, and again relieved her. She was much better, when she left Manchester, with the regiment to which her husband belonged.

HISTORY XLVI.

Job Bowers (History XVIII. and XXIX.) took the infusum nicotianæ, after omitting the tonic pills, for several days, in such quantities as to produce

produce violent sickness, without any diuretic effect.

HISTORY XLVII.

James Johnson, aged twenty-three, admitted August 15, 1791, excessively distended with ascites and anasarca, after trying some other diuretics, took the *infusum nicotianæ* in the quantity of eighty drops in twenty-four hours, for three days together. It produced sickness, but no increase of urine. Fifteen grains of jallap, and two drachms of cream of tartar, given at bed-time, vomited him briskly, and reduced the swellings for a time. But no increase in the quantity of his urine could be produced, by the most powerful diuretics, given in large doses, till the end of September, when he took, after a gradual augmentation, one hundred and twenty of the tonic pills in one day. His legs had previously begun to discharge, but without diminishing

diminishing the size of his belly. Though he passed more urine, while he took largely of the tonic pills, yet the quantity was not uncommon; more water seemed to be discharged by stool, than by the urinary passages. On the ninth of October, his abdomen was considerably reduced, but a considerable degree of vertigo had succeeded the last dose of the tonic pills; they were therefore omitted, and some wine prescribed. Thirty drops of spiritus ætheris vitriolici were likewise ordered to be given four times a-day. On the tenth, pain in the bowels and a diarrhoea came on; and the vitriolic spirit was omitted. Opiates and astringents were now given, but with little success. The purging continued violent, till the twenty-sixth. It then went off, leaving him greatly exhausted, but nearly free from anasarca, and much lessened in the size of the abdomen. The cerevisia diuretica was ordered

ordered on the twenty-eighth, joined with a cordial and tonic course, and full diet. But as his urine again decreased, and he began to fill afresh, on the fifth of November, he was ordered three grains of digitalis, which, on the seventh, were augmented to four. Time was not allowed, however, to experience the effect of this course, for he was desirous of returning to his native air, and I dismissed him, much relieved, but with little prospect of being ultimately cured.

This is the only case, in which I found the tonic pills affect the head; but there seemed a peculiar insensibility in this man's constitution to the stimulus of diuretics, and it was necessary to exhibit them in very strong doses.

HISTORY XLVIII.

Mary Rules, aged one year and a half, had the abdomen distended with
water,

water, to an excessive degree. I ordered a laxative, to obviate costiveness, and a few days afterwards she was tapped. A great quantity of water was drawn off, and the child appeared easier. Next day, however, she died.

On opening the body, we found the intestines much inflated; the liver was enlarged; but the principal disease appeared in the kidneys. They were increased in size; the pelvis of each had undergone an active inflammation, and several of the tubuli were full of pus.

HISTORY XLIX.

Charles Allen, of the same age, died of ascites about the same time, but the body was not inspected.

HISTORY L.

Mary Beard, aged thirty-eight, was admitted August 15, 1791. She had laboured

laboured under ascites and anasarca during several months, and was now enormously swelled, so that she breathed with extreme difficulty. She took some doses of digitalis, but as they produced no increase of urine, I ordered her to be tapped, a few days after her admission. Accordingly, the operation was performed, and eighteen quarts of water were drawn off. She was relieved in breathing, but a great degree of debility took place, and she died at the end of two days. When the body was opened, the liver appeared of a firmer texture than ordinary, inclining to schirrosity; the kidneys were enlarged, particularly that on the left side; and pus was found in the pelvis of each. In the thorax, the surface of the lungs was much diseased, and purulent; and water was effused in the cavity.

Of forty-seven cases, which I have here presented, under a short view,

twenty-two patients have been cured, three are in a state of convalescence, and will probably soon be discharged; five have been relieved; seven have received no benefit from their first course with me, and have passed into a different class of patients; and ten have died. Several of the last were in a hopeless state, when I first saw them; particularly Taylor, Rules, and Beard.* Most of them were also affected with hydrothorax. The success of the different methods employed has therefore been tolerably good, in a disease so difficult of removal as dropsy. "There is no disease," says Dr. Home, which affords hospitals more numerous patients than the different species of hydrops, and none, of which fewer are cured. The incurable nature of hydropic affections, was of old remarked by Aretæus: *Ab ipso pauci*

* Hist. XXIV. XLVIII. and L.

"liberantur,

“*liberantur, idque felicitate, ac deorum
“potius quam artis auxilio.”**

It remains to compare the merits of the three principal remedies employed, digitalis, cream of tartar, and the tonic pills.

1. Of twenty-four patients, who took digitalis, nine were cured; two were relieved; four died, and nine were not relieved. Of these cases, two were anasarca; seven were instances of ascites, two of hydrothorax; the rest were complicated, and in almost all the fatal instances, there was water in the chest. I have given this medicine in some other cases, where it did not succeed; but as the patients were in a dying state when I was called to them, it would be unfair to insert them.

* Clinical Exper. and Histories, p. 326.

Yet it must be observed, that in some of the instances I have given, which terminated fatally, notwithstanding the use of digitalis, the patients appeared to be in that state, which Dr. Withering describes as most favourable to the action of that medicine. Hartley, Williams and Newton were examples of this.

Respecting the particular operation of digitalis, in those cases, it may be remarked :

a That where it proved successful, it gave relief early, and in small doses; this appears from the first eight cases, and from that of Lees.

b That when given in such quantities as to excite nausea, or to produce evident narcotic effects, it does not operate as a diuretic. Johnson took it in such doses as to make him very sick,
and

and Williams continued it to four grains a-day, till his head and pulse were considerably affected, without passing a drop more of water. These facts correspond with Dr. Withering's experience, so that it is needless to dwell upon them.* I have had such repeated conviction of the first observation, that, if digitalis does not answer within the first week, I exchange it for some other diuretic, or interpose a cathartic, composed of gamboge and cream of tartar. I was led to the latter expedient, by observing, in Williams's case, and another in private practice; that the narcotic effect of the digitalis, in a long use of it, seemed to preclude its action as a diuretic. The same consideration had occurred to Dr.

* Dr. Withering observes (p. 185.) that a diarrhœa, supervening on the use of foxglove, stopped its diuretic effects. It has been asserted, that a purging always impedes the flow of urine, in dropsies; however excited, V. Wilkes on the Dropsy, p. 213.

Stokes.* Gamboge was long celebrated for its hydragogue powers, but appears to have fallen into disgrace by the indiscretion with which it was exhibited. Some of the older writers talk of giving sixteen grains for a dose.† I have found it very safe and manageable in small quantities; sometimes four grains have been necessary to operate four or five times, in a young subject. In conjunction with cream of tartar, it forms a powerful diuretic, and according to circumstances, may be made either to assist, or take the lead of the digitalis. I believe, that by this combination of the remedies, a flow of urine may very generally be commanded.

* Dr. Withering's Account of the Foxglove, p. 150.

† Wilkes on the Dropsy. Art. *Purges*. Sydenham orders fifteen grains of gamboge, in a draught, in the *Processus Integri*, as a very gentle cathartic.

c When digitalis fails, other diuretics will often succeed. This appears, from the cases of Williams, Jelly, Bowers, Johnson, and several of the rest.

d When digitalis does provoke an increase of urine, the swellings are not always proportionably relieved. While Waters was passing a great quantity of urine, and taking six spoonfuls a-day of the infusum digitalis, the swellings of his legs did not diminish. And while Rowbottom's legs were emptied, a short time before his death, the collection of water in the pericardium appeared to be increased.

2. Of ten cases, in which cream of tartar alone was given, according to Dr. Home's method, six were cured, two died, and two are convalescent. Of these, one was a distinct case of hydrothorax in which all the symptoms

toms were removed, and the patient continued well nearly for twelve months. In another, there was strong reason to suspect the presence of water in the chest; there also the symptoms were entirely taken off. In one fatal case, the existence of hydrothorax was ascertained. Two others were cases of anasarca, one of ascites, another of anasarca and ascites combined.

I have to observe, of the peculiar action of cream of tartar :

a That in my successful cases, it operated very early; generally producing an increased flow of urine within twenty-four hours. This was especially remarkable, in Mr. C. and Mather. Dr. Home often found its salutary effects delayed to the end of three or four weeks.* But it is difficult to persuade patients to continue

* Clinical Observations, Exper. &c. Art. Remedies of Hydrops.

the use of a medicine so long,* without any sensible benefit. .

b I have commonly found it purge the patient four or five times a-day. Instead of increasing the dose, therefore, as Dr. Home directs, I have been obliged to order tonics and cordials, to enable the patient to bear the usual quantity. There is, indeed, great difference between the constitutions of the usual patients at the Edinburgh royal infirmary, and those on which we have to work here. The natives of Manchester generally bear evacuations very ill. But after patients have continued to use this remedy for some weeks, I have found it necessary

* I have often found patients object to the quantity of liquid, in giving the solution of cream of tartar. This has obliged me in several cases, to have recourse to the combination with gamboge, which may be exhibited in a very small portion of fluid.

to increase the dose to six drachms, an ounce, or more, every day; and have then found it produce only two stools in twenty-four hours. In such cases, its diuretic power seemed to lessen in equal proportion. After Wyatt had long taken an ounce of cream of tartar a-day, she even became costive with that dose, and required the use of gamboge. Several of my dropsical patients, however, were strangers: Nield, Mather, Duny, Jelly and Johnson were Irish.

c Cream of tartar commonly diminishes the swellings very speedily. It produces very watery stools, and for the greater part, lessens the patient's size more quickly than the increase of urine would lead us to expect.

5. Of eight cases, in which the melampodium was exhibited, three were completely cured, one is convalescent;

two

two were emptied, and their swellings quite reduced, but died, from circumstances to be explained hereafter. One was not relieved. Another, Johnson, had watery stools, and was reduced in the size of the abdomen, after digitalis, and many other powerful diuretics had failed. In two of these, there was water in the chest, and probably in Johnson. Two were cases of pure ascites, one cured, and the other convalescent. The rest were complicated.

a The tonic pills, when they have succeeded with me, have operated early, by producing copious watery stools.

b Their action is easy, but in cases of long standing, contrary to Mr. Bacher's assertion, they evidently weaken the patient, however cautiously given.

c Whenever they produce a discharge of water, they reduce the swellings.

ings. These two effects, as I shall soon have occasion to observe, are by no means reciprocal in the use of every diuretic.

The Pulvis Doveri was given only in one case. The occasional cause of the disorder led directly to the employment of sudorifics, in that instance.

Gamboge with cream of tartar gave relief in a case (Bowers's) which had baffled every other prescription. The patient was cachectic, and there was reason to believe that the viscera were obstructed. The same remedy, in conjunction with calomel, was given, in a case of anasarca, and effected a cure very speedily.

The combination of calomel with squills was pushed to a considerable extent, with Jelly, because I suspected the condition of the liver. It did not, however,

however, diminish the swellings in proportion to its diuretic effect.

The tobacco tincture proved a ready diuretic with Coxe. In the two other cases, and in some which I do not recollect with sufficient accuracy to insert, it did no service. But in Coxe's case, which was evidently a dropsy of the ovarium, no benefit could be expected from simple diuretics. The mercurial friction, and spiritus ætheris vitriolici, produced a considerable effect on the disease. The latter, as well as the spiritus ætheris nitrosi, probably increases the urine by the action of its alcohol.

In Betty Clay's case, we have a striking example of the little anti-hydropic power of an active diuretic, the spiritus ætheris nitrosi. She attended me only once in two or three months, and at the end of eight, was as much swelled

as

as ever; though she had been constantly using this medicine, and though her urine was passing in very unusual quantity. The tonic pills have nearly effected a cure in this case.

On reviewing these observations, which were made without choice, and with no predilection for any remedy, the result appears not highly in favour of the digitalis. Yet I esteem it a valuable medicine, and I have always found it safe, by attending to Dr. Withering's cautions. The melampodium, as given in the form of tonic pills, appears, likewise, to possess virtues that ought not to be neglected. I have employed the cream of tartar in comparatively few cases, but when their nature is considered, and the surprizing proportion of success allowed for, I think we may fairly rank this medicine in the first

first class of hydragogues. From what I have seen of its effects, I shall hereafter give it a preference in most cases of dropsy, to bring forward a larger testimonial of its real merits. Stronger conclusions may be drawn in its favour, from these cases, because they coincide with the experience of Dr. Home.* Indeed, if cream of tartar be found to possess only an equal share of merit with digitalis, the former will deserve the preference, as possessing no deleterious qualities and being easily managed by practitioners of the smallest judgment. In treating of this remedy, Dr. Home has formed a just and valuable distinction, between remedies which act chiefly as diuretics, and those, which at the same time, diminish the fluid effused in dropsies. I have been led to refer to this distinction more than once, in the preceding cases. The doctor's words are these ;

* Clinical Observ. Exper. &c, p. 349,

“ We have found, that oxymel col-
“ chici, baccæ juniperi, &c. are much
“ stronger diuretics, but much weaker
“ antihydropsics, than cremor tartari.
“ We have seen, that it often neither
“ increases urine nor stool, and yet
“ that it cures.”* If this difference
were more observed, some mortifying
disappointments in practice might be
avoided.

Twenty-one of my patients were
males, and twenty-six were females.
This proportion supports the common
opinion, that women are more sub-
ject to hydropic affections. Their ages
have varied from a year and a half to
seventy.

In those cases which terminated
fatally, where an inspection of the body

* Clinical Exper. Obs. &c. p. 353. The whole passage, which
is long, deserves particular attention.

was obtained, besides the appearances of disease in the viscera, usual in dropsical complaints, we have frequently seen the kidneys affected with enlargement, inflammation, and a degree of suppuration. In Rowbottom, besides the disease in the liver, there was an affection of the heart, sufficient alone to produce death. In such instances, dissections prove the impossibility of saving the patient. Yet in several of these cases, much relief was obtained by the use of medicines, and life was not only prolonged, but soothed. The power of an hydragogue never appears greater, to a judicious observer, than when it reduces swellings occasioned by permanent disease in the viscera, although the event of the case should be ultimately fatal.

Five of my patients died, in consequence of a diarrhæa, which began
 H when

when their swellings were greatly reduced. It is an observation of Hippocrates, repeated by all writers* on this disease, that a diarrhæa, appearing in a dropsy of long continuance, is generally fatal. Johnson, however, had a looseness, almost at the distance of three months from the time of his admission, and yet escaped. In three of the dissections, an evident cause of this symptom appeared: the intestines were in a state of great inflammation.

Such a state of the bowels is frequently mentioned by practical writers,† but not as connected with a diarrhæa, nor as following the abatement of the swellings. I am inclined to believe, that this is a peculiar termination of inveterate ascites. We see

* Hoffman, tom. III. p. 329. Sydenham sub titulo, Lieutaud
Précis de la Med. Prat. &c.

† Monro on Dropsy, p. 8. and the authors quoted above.

in some other cases, in the puerperal fever particularly, that inflammation may arise in the contained parts of the abdomen, in consequence of the sudden removal of pressure; and in whatever way that fact may be explained, I apprehend that a similar process takes place, after the reduction of hydropic swellings.* Hoffman and some others, explain such affections of the intestines from the long-continued action of the effused water on them, which, though a theory of no value, shows their conviction of the reality of the fact. It is evidently of great importance to ascertain in what cases such a termination may be expected, because the practice, in a disease of long continuance, ought to be considerably

* We must take care to distinguish, however, that in puerperal fevers the peritoneum appears to be first affected. In hydropic inflammation, the villous coat of the intestines is chiefly attacked.

influenced by it. This view will induce the physician to avoid all stimulating purgatives, and rather to solicit a very gradual discharge of the effused fluid, than to urge the constitution to a degree of action, that may increase to a morbid state. There was no particular appearance indicative of this termination, in the cases I have observed, excepting a general irritability of the habit, which always secured the effect of the diuretics administered.

In three other fatal instances, death was brought on by gangrene. This is commonly to be expected, in men, when the skin of the penis has become distended and tortuous. Johnson is the only patient whom I have seen survive this symptom. In respect of this state, also, as a probable termination of dropsy, it is evident, that brisk purgatives, in the confirmed stage of the disease, must be very injurious. I should even
dread,

dread, in such circumstances, the effects of digitalis on the moving powers of the circulation.

I have never had recourse to tapping, but when the state of the swellings threatened suffocation. Whenever I have been compelled to employ it, I have found the effusion renewed in great quantity, in the course of forty-eight hours, or within three or four days at the utmost.

HYDROCEPHALUS.

Great doubts must attend every apparent instance of success, in the treatment of hydrocephalus internus. Other diseases produce nearly similar symptoms, and mercury, the prevailing remedy in hydrocephalus, is used with

success in those disorders; particularly in removing worms from the intestinal canal. The two following cases will prove that hydrocephalus may be survived, but I am inclined to regard them as spontaneous cures, little, if at all assisted by medicine. As new facts, however, they are worth recording, and as they afford clear instances of recovery, from a complaint generally deemed incurable, they may teach us not to despair, in similar situations.

In February, 1783, I was consulted for a boy, two years of age, who, about ten days before, had been suddenly deprived of his speech, of the motion of his right arm, and of that of both legs and feet. When I saw him, he had recovered the use of his arm, in some degree, but the lower extremities remained entirely useless. After the first appearance of these symptoms, the bones of the cranium had separated,

separated, and the right parietal bone was considerably elevated. The eyes were protruded, but, in a moderate light, the pupils had a natural appearance and contracted well. He underwent a feverish paroxysm every day. His pulse was commonly quick; his sleep much disturbed; and though naturally lively and active, he now appeared uncommonly dull. He had been blistered between the shoulders, without relief. I directed a blister to be applied over the fontanella, and ordered three grains of calomel to be given every second or third day. The paralytic symptoms went off rapidly, under this course, and at the end of a week, the bones of the cranium began to approximate. The sutures soon closed again, and the child recovered his usual spirits and activity with the use of his limbs.

In spring, 1789, the family of a labourer in Wood-Street, of the name

of Belcher, was attacked by the fever then prevalent. One of the children, a boy about a year and half old, was insensible during a great part of the course of the fever, and lingered much in his recovery. When the strength returned, an aversion to light was observed, and the head began to increase in size. At length, the sutures opened, and the child became blind. The motion of the lower limbs was lost about the same time. I gave calomel in small doses, every other day, so as to keep the body moderately open, but without exciting any signs of mercurial action. By degrees, the child became more lively, regained the use of its limbs, and the enjoyment of all its senses, but that of sight. The head then decreased in size, and at the end of six weeks, the sutures closed again. The patient grew strong, active and lusty. But a cataract of considerable size now appeared in each eye,

eye, and as an operation was not to be thought of in so young a subject, he was discharged, cured of hydrocephalus.

Perhaps the fortunate event of these cases was owing to the suddenness with which the effusion was made. In the first, no exciting cause could be discovered, and probably whatever cause had acted, had not been permanent. In the second, the febrile attack seemed to excite the effusion; and with the fever, the dangerous state of the disease had ended. Symptoms of recovery appeared, in the first patient, before I saw him; I have therefore little hesitation in considering his cure as spontaneous. The event of the second case is more doubtful in this respect. Little mercury was given, and no affection of the mouth was excited; neither was there any increase of urine. Perhaps the medicine assisted nature in
some

some degree, but I am disposed to rank this also as an instance of spontaneous recovery, by recollecting the sudden amendment of the constitution in every respect. The relief of the complaint in the head appeared to follow this amendment, not to introduce it.

Exhibiting the EFFECTS of some DIURETICS, in FORTY-SEVEN CASES of DROPSY.

| <i>Name.</i> | <i>Age.</i> | <i>Species of Dropsy.</i> | <i>Remedy.</i> | <i>Event.</i> |
|--------------------------|-----------------|-----------------------------|--|---|
| 1. Sarah Irlam | 60 | Anasarca | Digitalis | Cured |
| 2. John Wilson | 28 | Ascites and Anasarca | Digitalis, 1st Course | Cured |
| The same | | Relapsed | Digitalis, 2d Course | Not relieved |
| 3. Elizabeth Hall | 31 | Leucophlegm. & incip. asc. | Digitalis | Cured |
| 4. John Dawson | 55 | Ascites & Leucophlegmatia | Digitalis | Cured |
| 5. James Heys | 27 | Ascites and Anasarca | Digitalis | Cured |
| 6. Elizabeth Atherton | 19 | Ascites & Leucophlegmatia | Digitalis | Cured |
| 7. Ellen Farrar | 19 | Hydrothorax | Digitalis | Cured |
| 8. Margaret Dewrden | 9 | Ascites | Digitalis | Cured |
| 9. Elizabeth Bayley | 25 | Hydrothorax | Digitalis | Relieved |
| 10. John Rowbottom | 16 | Hydroth. Ascites & Anasar. | 1. Digitalis, & Cream of Tartar with gamboge. 2. Calomel with Squills | Relieved |
| 11. Ellen Wyatt | 58 | Ascites | 1st. Course. Tonic Pills. Digitalis | Not relieved |
| The same | | | 2d Course. Cream of Tartar in Solution, with Gamboge | Convalescent |
| 12. James Lees | 53 | Ascites | Digitalis | Cured |
| 13. William Williams | 60 | Ascites and Anasarca | 1st Course. Digitalis | Not relieved |
| The same | | | 2d Course. Tonic Pills | Died after the Swellings were removed |
| 14. Elizabeth Williamson | 30 | Ascites & Anasar. 3d attack | Digitalis | Not relieved |
| 15. Ellen Jones | 60 | Anasarca | Digitalis | Not relieved |
| 16. William Waters | 23 | Ascites | Digitalis | Died |
| 17. Job Bowers | 37 | Ascites and Anasarca | Digitalis, and Cream of Tartar with Gamboge | Died |
| 18. Mary Rowley | 30 | Ascites | Digitalis | Not relieved |
| 19. Mary Sudworth | 21 | Ascites and Anasarca | Digitalis | Not relieved |
| 20. Elizabeth Oldham | 48 | Ascites | Digitalis | Not relieved |
| 21. Elizabeth Williamson | 60 | Ascites | Digitalis | Not relieved |
| 22. George Newton | 70 | Ascites, Anasar. & Hydroth. | Digitalis | Died |
| 23. William Taylor | 19 | Ascites, Anasar. & Hydroth. | Digitalis | Died |
| 24. Mr. C. | 40 | Hydrothorax | Cream of Tar. in Solut. | Cured |
| 25. A. B. | 38 | Hydrothorax and Ascites | Cream of Tartar | Cured |
| 26. Peter Nield | 45 | Anasarca | Cream of Tartar | Cured |
| 27. Thomas Mather | 25 | Ascites and Anasarca | Cream of Tartar | Cured |
| The same | | Relapsed | Cream of Tartar | Convalescent |
| 28. John Hopwood | 48 | Ascites and Hydrothorax | Cream of Tartar | Relieved |
| 29. Elizabeth Monk | 45 | Hydrothorax | Cream of Tartar | Convalescent |
| 30. Catherine Duny | 20 | Ascites | Cream of Tartar | Cured |
| 31. Ann Wagstaff | 25 | Anasarca | Cream of Tartar | Cured |
| 32. Jeremiah Wood | 42 | Anasarca and Hydrothorax | Cream of Tartar | Died |
| 33. Sarah Hartley | 29 | Ascites and Hydrothorax | Bacher's Tonic Pills | Died after the removal of the Swellings |
| 34. Alice Wrigley | 15 | Ascites and Anasarca | Bacher's Tonic Pills and Infusum Diureticum | Cured |
| 35. Ann Waring | 23 | Ascites and Anasarca | Bacher's Tonic Pills | Cured |
| 36. Betty Clay | 46 | Ascites | 1st Course. Sp. Ether. Nitrosi. 2d Course. Bacher's Tonic Pills | Relieved. Convalescent |
| 37. Mary Winterbottom | 58 | Ascites | Bacher's Tonic Pills | Cured |
| 38. William Kay | 12 | Ascites | Pulvis Doveri | Cured |
| 39. Hannah Wolstenholme | 40 | Anasarca | Calomel | Cured |
| 40. Thomas Jelly | 38 | Hydroth. Ascites & Anasar. | Calomel with Squills and Opium | 1st Course; Relieved. 2d Course; died, after the removal of the Swellings |
| 41. Mary Cox | 29 | Hydrops Ovarii | Nicotiana and Sp. Etheris Vitriolici | Relieved |
| 42. James Johnson | 23 | Ascites and Anasarca | Nicotiana | Not relieved |
| The same | | | Bacher's Tonic Pills | Relieved |
| 43. Mary Rules. | 1 $\frac{1}{2}$ | Ascites | Puncture | Died |
| 44. Charles Allen | 1 $\frac{1}{2}$ | Ascites | Squills | Died |
| 45. Mary Beard | 38 | Ascites, Anasar. & Hydroth. | Puncture | Died |
| 46. Edward Osmotherly | 2 | Hydrocephalus | Calomel | Recovered |
| 47. Thomas Belcher | 1 $\frac{1}{2}$ | Hydrocephalus | Calomel | Recovered |

Cases of Ascites alone, *thirteen*; of which, were

| | |
|---------------|----|
| Cured, | 5. |
| Died, | 3. |
| Convalescent, | 2. |
| Not relieved, | 3. |

Cases of Hydrothorax alone, *four*; of which,

| | |
|---------------|----|
| Cured, | 2. |
| Relieved, | 1. |
| Convalescent, | 1. |

Cases of Anasarca alone, *five*; of which

| | |
|---------------|----|
| Cured, | 4. |
| Not relieved, | 1. |

Cases of Hydrocephalus, *two*; both recovered.

Case of Hydrops Ovarii, *one*; relieved.

Cases of Anasarca and Ascites complicated;
thirteen; of which,

| | |
|---------------|----|
| Cured, | 8. |
| Died, | 1. |
| Relieved, | 1. |
| Not relieved, | 3. |

Cases of Ascites and Anasarca, or of either, complicated with Hydrothorax; *nine*; of which,

| | |
|-----------|----|
| Cured, | 1. |
| Died, | 6. |
| Relieved, | 2. |

Total,

| | |
|---------------|-------|
| Total cured, | 22. |
| — relieved, | 5. |
| Convalescent, | 3. |
| Not relieved, | 7. |
| Dead, | 10. |
| | <hr/> |
| | 47. |

It appears from this table, that cases of anasarca alone, or of anasarca and ascites complicated, are the most curable species of dropsy; next to these ascites; and that the most intractable kind is the complication of ascites and anasarca, or of either, with hydrothorax. This confirms the common opinion. My cases of hydrothorax alone have been very favourable; but they are not in sufficient number to justify a conclusion. The same observation applies to the instances of hydrocephalus, and to that of hydrops ovarii.

UVA URSI.

I have given this medicine in a considerable number of nephritic cases, in very moderate doses, and always with manifest advantage. When the pain is very acute, and the pulse quick, I begin the cure with bleeding, and a gentle purgative, composed of manna and a neutral salt. This purgative I repeat twice a-week, and on the intermediate days, direct the patient to take five* grains of uva ursi, and half a

* The smallness of this dose, in exhibiting a medicine generally given in the quantity of a scruple, may excite surprise. A medical friend, of high reputation, who inspected these papers before they went to the press, appeared very dubious respecting this particular. The facts, however, are exactly as I have represented, and I may add, that in doses of a scruple, or half a drachm, I have found this remedy produce nausea, even when joined with opium.

grain

grain of opium, three or four times a-day, according to the urgency of the symptoms. I have never found larger doses necessary. This method always relieves, and generally effects a cure. Of sixteen patients, treated in this manner, I have discharged twelve cured.* In reckoning the cures, I do not rest on the cessation of a single fit, but require a permanent relief from pain. Many of my patients have used the remedy for several months together, before this end was attained. The fits became slighter, and at length ceased.

The mode in which this remedy acts, is still unknown. It produces no sensible effect beside the abatement of pain, which cannot be attributed to the small quantity of opium joined

* Of the remaining four, two were much relieved, and two discontinued their attendance.

with it. Dr. Cullen's conjecture on this subject, though it seems to approach near the truth, still gives us an effect for a cause. Perhaps the secret is to be sought in the undiscovered process of the generation of calculus. If, as the new chemistry teaches us, the human calculus consist in a great measure of a peculiar acid, it is possible, that a bitter and astringent of a certain nature, may exert specific powers, by direct action on the solids, in preventing the separation of that acid from the fluids, in uncommon quantity.

I have had occasion to try the effect of uva ursi, in some cases of hæmaturia, in delicate female subjects, where there was every reason to conclude, that the hæmorrhage proceeded from the kidneys. It has always succeeded in removing the complaint.

From

From these, and some other facts, I have been led to believe, that this remedy acts specifically, as a tonic and astringent, on the kidneys.

HYSTERIA.

Men are frequently attacked by complaints which approach to the hysterical type. In the following instance, a young man was affected with regular hysteric fits, in consequence of continued vexation and anxiety.

In spring, 1789, I was desired to visit J. C. about seventeen years of age, on account of fits, with which he had been seized a few days before. I was told, that they began with great dejection of spirits, sighing, and uneasiness about the præcordi. He then became

became apparently insensible, but groaned much, and did not recover for a considerable time. He relapsed frequently, from slight causes, and often had three or four fits in a day. He said, that he felt the globus hystericus, at the approach of each paroxysm, and that he retained his senses, in some degree, to the termination of each. His pulse was weak, and hurried; his tongue somewhat foul; and his countenance timid. His evacuations were natural. I do not recollect the particular nature of his employment, but it was of a sedentary kind.

After clearing his stomach by an emetic, I directed some pills to be made up, composed of opium and asafoetida, and to be given in such a manner, that he took half a grain of the former, and four grains of the latter, every hour, previous to the approach of the morning paroxysm. On the

first day of taking the pills, the fit came on, but in a slighter degree. The next day, he was ordered to begin at a greater distance from the usual time of the fit. He took, by this means, three grains of opium, and more than a scruple of asafœtida. The paroxysm was effectually prevented by this dose without producing the smallest uneasiness to the patient. Two of the pills were given at bed-time, for a few nights afterwards, and the cure was finished by administering tonics. I have not heard that he has suffered any relapse.

DIABETES.

I have seen very few instances of this disorder, and can add nothing to its history, but one case in which the patient was cured. Any example of
success,

success, in a complaint generally so intractable, is interesting and encouraging.

Robert Backhouse, aged forty-five, was admitted in June, 1791. He had passed a very great quantity of urine, for several weeks. At the time of his admission, the flow of urine was greatest in the night, and prevented him from sleeping. He then passed from three to four quarts in the course of each night exclusive of at least one quart in the day. His urine was whey-coloured, and of a sweetish taste. He was much emaciated, and troubled with a constant thirst; his tongue appeared parched, and was divided by small fissures.

I directed for him a course of bark, with elixir of vitriol. In a fortnight, his urine came off in smaller quantity, and soon after was reduced entirely to

a natural state. He then complained of considerable heat and pain in the region of the bladder, which were removed by demulcents. He went out, with a cough, and some other pectoral complaints (for which he was desired to attend as an out-patient) but perfectly cured of his diabetes.

Dr. Sydenham seems to have considered this as a disease arising from debility,* but he has not taken notice of it as an idiopathic disorder. Our patient's symptoms indicated tonic remedies, and these had all the success I could desire. If they had failed, I should have joined the use of lime-water with them. This remedy has been considered, by some practitioners, as a kind of specific in diabetes.

The only remarkable circumstance which I could trace in the previous

* Of the epidemic diseases, from 1675 to 1680.

history of this patient, was that he had indulged himself in drinking spirituous liquors.

Several cases of diabetes mellitus have come under my care, since the first publication of this volume.

A complete cure is seldom obtained, in the advanced stage of this disease; yet by treating it as a disease of debility, in conformity to Dr. Sydenham's opinion, I have been enabled generally to relieve the patients, and sometimes to effect a cure.

The theory of diabetes, advanced by Dr. Cullen and Dr. Dobson, and adopted with additional error by Dr. Darwin, has been so solidly refuted by Dr. Baillie, that I think it unnecessary to enter into the discussion. I refer the reader, for these arguments, to the

Transactions of a Society for the improvement of Medical and Chirurgical knowledge, vol. II. art. 5.

In one case of diabetes, which terminated fatally, I obtained an inspection of the body, and found the kidneys greatly diseased. There were ulcerations in the pelvis of each kidney, and even the external surface of each was covered with deep ulcers, in a circular form. With such appearances before us, it would be idle to seek for the seat of this complaint in a distant organ, and it would be vain to expect a permanent cure, in such a state of the kidneys, from any remedy.

The suggestions of this defective theory, however, have proved useful, by introducing the practice of confining the patient to animal food, for which we are indebted to Dr. Rollo, and the efficacy of which will be strongly exemplified

exemplified in two of the succeeding cases.

From the view which I had taken of diabetes, I was induced to try a combination of Peruvian bark, uva-ursi, and opium, in the proportions of a scruple of each of the former, to half a grain of the latter, four times a-day. The doses were taken with lime-water, which was also directed for the patients' common drink. Three cases of confirmed diabetes mellitus were cured by this plan. I shall now give a detailed view of some recent cases of the disease, exhibiting the progress of recovery.

Samuel Brookes, a middle aged man, was admitted, Oct. 10th, 1808, into the infirmary. He had been affected with diabetes, in a greater or less degree, for a year and half. The following table will shew the increase, and subsequent diminution of his urine.

TABLE.

| | | |
|----------------|--------------|-------------------------|
| Oct. 10, 1808, | in 12 hours, | 6 pints. |
| 12, | in 24 ditto, | 10 ditto. |
| 13, | ditto, | 12 ditto. |
| 14, | ditto, | 13 $\frac{1}{2}$ ditto. |
| 15, | ditto, | 14 ditto. |
| 16, | ditto, | 16 ditto. |
| 17, | ditto, | 17 $\frac{1}{2}$ ditto. |
| 18, | ditto, | 15 ditto. |
| 19, | ditto, | 14 ditto. |
| 20, | ditto, | 15 ditto. |
| 21, | ditto, | 15 ditto. |
| 22, | ditto, | 17 ditto. |
| 23, | ditto, | 16 $\frac{1}{2}$ ditto. |
| 24, | ditto, | 14 $\frac{1}{2}$ ditto. |
| 25, | ditto, | 18 ditto. |
| 26, | ditto, | 15 ditto. |
| 27, | ditto, | 15 ditto. |
| 28, | ditto, | 16 $\frac{1}{2}$ ditto. |
| 29, | ditto, | 18 ditto. |
| 30, | ditto, | 16 ditto. |
| 31, | ditto, | 17 ditto. |
| Nov. 1, | ditto, | 15 ditto. |
| 2, | ditto, | 20 ditto. |

Nov.

| | | |
|---------------|--------------|-------------------------|
| Nov. 3, 1808, | in 24 hours, | 17 pints. |
| 4, | ditto, | 14 ditto. |
| 5, | ditto, | 14 $\frac{1}{2}$ ditto. |
| 6, | ditto, | 14 ditto. |
| 7, | ditto, | 15 ditto. |
| 8, | ditto, | 14 ditto. |
| 9, | ditto, | 13 ditto. |
| 10, | ditto, | 9 ditto. |
| 11, | ditto, | 12 ditto. |
| 12, | ditto, | 12 ditto. |
| 13, | ditto, | 14 ditto. |
| 14, | ditto, | 12 ditto. |
| 15, | ditto, | 15 ditto. |
| 16, | ditto, | 14 ditto. |
| 17, | ditto, | 19 ditto. |
| 18, | ditto, | 14 ditto. |
| 19, | ditto, | 20 ditto. |
| 20, | ditto, | 19 ditto. |
| 21, | ditto, | 16 ditto. |
| 22, | ditto, | 20 ditto. |
| 23, | ditto, | 20 ditto. |
| 24, | ditto, | 19 ditto. |
| 25, | ditto, | 21 ditto. |
| 28, | ditto, | 18 ditto. |
| 29, | ditto, | 19 ditto. |
| 30, | ditto, | 16 ditto. |
| Dec. 1, | ditto, | 17 ditto. |
| 2, | ditto, | 16 $\frac{1}{2}$ ditto. |
| 3, | ditto, | 21 ditto. |
| 4, | ditto, | 18 ditto. |

Dec.

| | | |
|---------------|--------------|-------------------------|
| Dec. 5, 1808, | in 24 hours, | 17 pints. |
| 6, | ditto, | 16 ditto. |
| 7, | ditto, | 16 ditto. |
| 8, | ditto, | 18 ditto. |
| 9, | ditto, | 18 ditto. |
| 10, | ditto, | 18 ditto. |
| 11, | ditto, | 19 ditto. |
| 12, | ditto, | 19 ditto. |
| 13, | ditto, | 19 ditto. |
| 20, | ditto, | 16 ditto. |
| 21, | ditto, | 14 ditto. |
| 26, | ditto, | 23 ditto. |
| 27, | ditto, | 22 ditto. |
| 29, | ditto, | 19 ditto. |
| 30, | ditto, | 18 ditto. |
| 31, | ditto, | 17 ditto. |
| Jan. 1, 1809, | ditto, | 22 ditto. |
| 2, | ditto, | 20 ditto. |
| 3, | ditto, | 21 ditto. |
| 4, | ditto, | 22 ditto. |
| 5, | ditto, | 20 $\frac{1}{4}$ ditto. |
| 6, | ditto, | 20 ditto. |
| 7, | ditto, | 19 ditto. |
| 8, | ditto, | 21 ditto. |
| 9, | ditto, | 18 ditto. |
| 10, | ditto, | 16 $\frac{1}{2}$ ditto. |
| 11, | ditto, | 15 ditto. |
| 12, | ditto, | 14 ditto. |
| 13, | ditto, | 14 ditto. |
| 14, | ditto, | 13 ditto. |

Jan.

| | | |
|----------------|--------------|------------------------|
| Jan. 15, 1809, | in 24 hours, | 14 pints. |
| 16, | ditto, | 14 ditto. |
| 17, | ditto, | 12 ditto. |
| 18, | ditto, | 15 ditto. |
| 19, | ditto, | 15 ditto. |
| 20, | ditto, | 12 ditto. |
| 21, | ditto, | $12\frac{1}{2}$ ditto. |
| 22, | ditto, | 14 ditto. |
| 23, | ditto, | 13 ditto. |
| 24, | ditto, | $10\frac{1}{2}$ ditto. |
| 25, | ditto, | $10\frac{1}{2}$ ditto. |
| 26, | ditto, | 12 ditto. |
| 27, | ditto, | 12 ditto. |
| 28, | ditto, | 11 ditto. |
| 29, | ditto, | $10\frac{1}{2}$ ditto. |
| 30, | ditto, | $10\frac{1}{2}$ ditto. |
| 31, | ditto, | 12 ditto. |
| Feb. 1, | ditto, | 11 ditto. |
| 2, | ditto, | $10\frac{1}{2}$ ditto. |
| 3, | ditto, | $10\frac{1}{2}$ ditto. |
| 4, | ditto, | $10\frac{1}{2}$ ditto. |
| 5, | ditto, | $10\frac{1}{2}$ ditto. |
| 6, | ditto, | 10 ditto. |
| 7, | ditto, | $9\frac{1}{2}$ ditto. |
| 8, | ditto, | 10 ditto. |
| 9, | ditto, | $8\frac{1}{2}$ ditto. |
| 10, | ditto, | $6\frac{1}{2}$ ditto. |
| 11, | ditto, | $5\frac{1}{2}$ ditto. |
| 12, | ditto, | 6 ditto. |
| 13, | ditto, | 6 ditto. |

Feb.

| | | |
|---------------|--------------|-----------------------|
| Feb. 14, 1809 | in 24 hours, | $6\frac{1}{2}$ pints: |
| 15, | ditto, | 8 ditto. |
| 16, | ditto, | $7\frac{1}{2}$ ditto. |
| 17, | ditto, | $7\frac{1}{2}$ ditto. |
| 18, | ditto, | $6\frac{1}{2}$ ditto. |
| 19, | ditto, | 8 ditto. |
| 20, | ditto, | $7\frac{1}{2}$ ditto. |
| 21, | ditto, | 7 ditto. |
| 22, | ditto, | 8 ditto. |
| 23, | ditto, | 8 ditto. |
| 24, | ditto, | 8 ditto. |
| 25, | ditto, | 7 ditto. |
| 26, | ditto, | 8 ditto. |
| 27, | ditto, | $7\frac{1}{2}$ ditto. |
| 28, | ditto, | $7\frac{1}{2}$ ditto. |
| March 1, | ditto, | $6\frac{1}{2}$ ditto. |
| 2, | ditto, | 7 ditto. |
| 3, | ditto, | 8 ditto. |
| 4, | ditto, | $8\frac{1}{2}$ ditto. |
| 5, | ditto, | 8 ditto. |
| 6, | ditto, | 8 ditto. |
| 7, | ditto, | 8 ditto. |
| 8, | ditto, | 8 ditto. |
| 9, | ditto, | 7 ditto. |
| 10, | ditto, | 9 ditto. |
| 11, | ditto, | 8 ditto. |
| 12, | ditto, | 7 ditto. |
| 13, | ditto, | $7\frac{1}{2}$ ditto. |
| 14, | ditto, | $7\frac{1}{2}$ ditto. |
| 15, | ditto, | 8 ditto. |

March

| | | | |
|-----------------|--------------|-----------------|--------|
| March 16, 1809, | in 24 hours, | 7 | pints. |
| 17, | ditto, | 8 | ditto. |
| 18, | ditto, | 8 | ditto. |
| 19, | ditto, | 6 $\frac{1}{2}$ | ditto. |
| 20, | ditto, | 8 | ditto. |
| 21, | ditto, | 7 | ditto. |
| 22, | ditto, | 7 $\frac{1}{2}$ | ditto. |
| 23, | ditto, | 6 $\frac{1}{2}$ | ditto. |
| 24, | ditto, | 6 | ditto. |
| 25, | ditto, | 7 | ditto. |
| 26, | ditto, | 6 | ditto. |
| 27, | ditto, | 6 | ditto. |
| 28, | ditto, | 4 $\frac{1}{2}$ | ditto. |
| 29, | ditto, | 5 $\frac{1}{2}$ | ditto. |
| 30, | ditto, | 5 $\frac{1}{2}$ | ditto. |
| 31, | ditto, | 5 | ditto. |
| April 1, | ditto, | 5 | ditto. |
| 2, | ditto, | 5 $\frac{1}{2}$ | ditto. |
| 3, | ditto, | 6 | ditto. |
| 4, | ditto, | 6 | ditto. |
| 5, | ditto, | 5 | ditto. |
| 6, | ditto, | 5 | ditto. |

This

This patient was much emaciated, when admitted, and had a thick yellow crust on his tongue. The prescriptions were ;

Capiat. Pulv. Uvæ Urs.

—— Cort. Peruv. āā ʒj.

—— Opii grss quater in die.

Bibat Aq. Calc. ʒij. post sing. dos. Pulver.

On Dec. 19th, when he was evidently regaining his health, he was put on a strict diet of animal food : his looks were at that time improving. A diarrhæa was occasioned by the animal diet, in consequence of which his medicines were omitted, and he was put on common diet.

On the 26th, he was ordered to take his powders again, but ten grains of the extract of Ratania were substituted for the Peruvian bark. His urine was still decreasing in quantity.

On

On Jan. 11th, being much better in health, he was again restricted to animal food, and the plan of medicine and regimen was continued without variation, till the 10th of April, when he was discharged; the quantity of urine being then natural, though it still contained saccharine matter.

Dr. Henry has favoured me with the following remarks on the chemical properties of the urine.

“ The first examination, which I made
“ of Brookes’s urine, was in November
“ last. It had then, distinctly, all the
“ chemical properties, that characterize
“ this fluid in diabetes mellitus. Its
“ specific gravity varied from 1029 to
“ 1033, the first urine voided in a
“ morning by a healthy person having
“ usually the specific gravity of 1020.
“ When evaporated by the heat of
“ steam, it gave about 1-15th its weight
“ of

“ of a tenacious extract, which became
“ hard and brittle on cooling, and con-
“ sisted almost entirely of saccharine
“ matter, without any of that peculiar
“ substance (urea) which distinguishes
“ healthy urine. No urea, at least,
“ could be discovered by the application
“ of nitric acid ; but by other methods
“ of analysis, which I shall soon have
“ occasion to publish, a small proportion
“ was detected, and may, I believe, be
“ discovered in all diabetic urine. This
“ fact is of some importance ; inasmuch
“ as it proves that the secretory office of
“ the kidneys, however it may be im-
“ paired, is not altogether deranged even
“ in the worst form of the disease.

“ On the 22d of February, the urine
“ of the same person yielded 1-16th its
“ weight of extract, a variation from the
“ former proportion not greater than
“ often occurs in the same day. The
“ extract was equally saccharine as be-
the

“ fore, and still afforded no scales on
“ the addition of nitric acid. On the
“ 4th of April, it gave 1-12th; and, on
“ the 8th, between 1-10th and 1-11th
“ its weight of saccharine matter, with-
“ out any sensible portion of urea.
“ Hence it appears, that notwithstanding
“ the patient’s amendment, and the great
“ reduction of saccharine matter daily
“ evacuated, its proportion, in a given
“ quantity of urine, had rather increased
“ than diminished. This is contrary
“ to the experience of Dr. Rollo and
“ many of his correspondents, who
“ found the effect of animal diet to be
“ a diminution of the proportion of
“ extractive matter, and the re-appear-
“ ance of urea.

“ I had no opportunity of examining
“ Winterbottom’s urine, till he had been
“ some time exclusively using animal
“ food; but his description leaves no
“ doubt that it had been before largely

“ impregnated with sugar. It has now,
“ in every respect, the properties of
“ healthy urine, containing no saccha-
“ rine matter, and affording the natural
“ proportion of extract, in which urea
“ is made remarkably apparent by the
“ test of nitric acid.

“ A singular appearance in Brooks’s
“ urine, at one period of the disease,
“ was the deposition of a large quantity
“ of coagulated albumen, in round
“ grains resembling pearl barley. Du-
“ ring three days, this deposit amounted
“ to two ounces and a half.

“ I examined, with the greatest atten-
“ tion, a small quantity of blood, which
“ had been taken from Brooks’s arm.
“ The serum had precisely the same
“ specific gravity as that of healthy
“ blood, and coagulated at the same
“ temperature. It had not the whey
“ colour, which I remember once to
“ have

“ have remarked in an instance of
“ this disease, nor did it afford the
“ smallest trace of sugar on the most
“ careful analysis.”

Marcellus Winterbottom, a young man, had been ill of diabetes for two months. He was admitted Dec. 26th, 1808. He was ordered the same medicines with Brookes, and on Jan. 21st, was confined to a strict diet of animal food. No variation took place, till the time of his being discharged, when his urine was natural, both in quantity and quality.

TABLE.

| | | |
|----------------|--------------|------------|
| Dec. 29, 1808, | in 24 hours, | 17 pints. |
| 30, | ditto, | 17 ditto. |
| 31, | ditto, | 14 ditto. |
| Jan. 1, 1809, | ditto, | 14½ ditto. |
| 2, | ditto, | 15 ditto. |
| 3, | ditto, | 16 ditto. |
| 4, | ditto, | 16½ ditto. |
| 5, | ditto, | 15½ ditto. |
| 6, | ditto, | 16½ ditto. |
| 7, | ditto, | 15 ditto. |
| 8, | ditto, | 15½ ditto. |
| 9, | ditto, | 16 ditto. |
| 10, | ditto, | 15½ ditto. |
| 11, | ditto, | 14 ditto. |
| 12, | ditto, | 15½ ditto. |
| 13, | ditto, | 16 ditto. |
| 14, | ditto, | 15 ditto. |
| 15, | ditto, | 16 ditto. |
| 16, | ditto, | 15 ditto. |
| 17, | ditto, | 16 ditto. |
| 18, | ditto, | 17½ ditto. |
| 19, | ditto, | 14 ditto. |
| 20, | ditto, | 15 ditto. |

Jan.

| | | |
|----------------|--------------|-------------------------|
| Jan. 21, 1809, | in 24 hours, | 14 pints. |
| 22, 7 | ditto, 0.11b | 13 $\frac{1}{2}$ ditto. |
| 23, 8 | ditto, 0.11b | 13 $\frac{1}{2}$ pints. |
| 24, 7 | ditto, 0.11b | 12 $\frac{1}{2}$ ditto. |
| 25, 0.1 | ditto, 0.11b | 12 ditto. |
| 26, 8 | ditto, 0.11b | 11 $\frac{1}{2}$ ditto. |
| 27, 18 | ditto, 0.11b | 11 ditto. |
| 28, 1.5 | ditto, 0.11b | 10 ditto. |
| 29, 1.7 | ditto, 0.11b | 10 ditto. |
| 30, 8 | ditto, 0.11b | 11 ditto. |
| 31, 7 | ditto, 0.11b | 10 ditto. |
| Feb. 1, 0 | ditto, 0.11b | 11 ditto. |
| 2, 7 | ditto, 0.11b | 12 ditto. |
| 3, 8 | ditto, 0.11b | 10 ditto. |
| 4, 7 | ditto, 0.11b | 9 $\frac{1}{2}$ ditto. |
| 5, 7 | ditto, 0.11b | 9 ditto. |
| 6, 2 | ditto, 0.11b | 10 ditto. |
| 7, 7 | ditto, 0.11b | 10 ditto. |
| 8, 7 | ditto, 0.11b | 12 ditto. |
| 9, 0 | ditto, 0.11b | 9 $\frac{1}{2}$ ditto. |
| 10, 7 | ditto, 0.11b | 11 ditto. |
| 11, 1.2 | ditto, 0.11b | 9 $\frac{1}{2}$ ditto. |
| 12, 0 | ditto, 0.11b | 9 ditto. |
| 13, 7 | ditto, 0.11b | 8 ditto. |
| 14, 8 | ditto, 0.11b | 10 ditto. |
| 15, 2 | ditto, 0.11b | 8 $\frac{1}{2}$ ditto. |
| 16, 7 | ditto, 0.11b | 8 $\frac{1}{2}$ ditto. |
| 17, 2 | ditto, 0.11b | 8 ditto. |
| 18, 7 | ditto, 0.11b | 8 $\frac{1}{2}$ ditto. |
| 19, 1.2 | ditto, 0.11b | 8 ditto. |

| | | |
|----------------|--------------|-----------------------|
| Feb. 20, 1809, | in 24 hours, | $7\frac{1}{2}$ pints. |
| 21, | ditto, | 7 ditto. |
| 22, | ditto, | 8 ditto. |
| 23, | ditto, | 7 ditto. |
| 24, | ditto, | 10 ditto. |
| 25, | ditto, | 8 ditto. |
| 26, | ditto, | $8\frac{1}{2}$ ditto. |
| 27, | ditto, | $7\frac{1}{2}$ ditto. |
| 28, | ditto, | $7\frac{1}{2}$ ditto. |
| March 1, | ditto, | 8 ditto. |
| 2, | ditto, | 7 ditto. |
| 3, | ditto, | 6 ditto. |
| 4, | ditto, | 7 ditto. |
| 5, | ditto, | 8 ditto. |
| 6, | ditto, | 7 ditto. |
| 7, | ditto, | 7 ditto. |
| 8, | ditto, | 9 ditto. |
| 9, | ditto, | 7 ditto. |
| 10, | ditto, | 7 ditto. |
| 11, | ditto, | 6 ditto. |
| 12, | ditto, | 7 ditto. |
| 13, | ditto, | $5\frac{1}{2}$ ditto. |
| 14, | ditto, | 6 ditto. |
| 15, | ditto, | 7 ditto. |
| 16, | ditto, | 8 ditto. |
| 17, | ditto, | 5 ditto. |
| 18, | ditto, | 7 ditto. |
| 19, | ditto, | 5 ditto. |
| 20, | ditto, | 7 ditto. |
| 21, | ditto, | $5\frac{1}{2}$ ditto. |

March

TABLE.

| | | |
|-----------------|--------------|-----------------------|
| March 22, 1809, | in 24 hours, | 6 pints. |
| 23, | ditto, | 6 ditto. |
| 24, | ditto, | $5\frac{1}{2}$ ditto. |
| 25, | ditto, | 6 ditto. |
| 26, | ditto, | 6 ditto. |
| 27, | ditto, | $5\frac{1}{2}$ ditto. |
| 28, | ditto, | $5\frac{1}{2}$ ditto. |
| 29, | ditto, | $5\frac{1}{2}$ ditto. |
| 30, | ditto, | $3\frac{1}{2}$ ditto. |
| 31, | ditto, | $4\frac{1}{2}$ ditto. |
| April 1, | ditto, | 5 ditto. |
| 2, | ditto, | 4 ditto. |
| 3, | ditto, | 4 ditto. |
| 4, | ditto, | $5\frac{1}{2}$ ditto. |
| 5, | ditto, | 5 ditto. |
| 6, | | |

In another case, which was treated with the same medicines, but without restriction of diet, I did not succeed. The patient at first made fifteen pints of water in twenty-four hours, and when he was discharged, the quantity was only reduced to five quarts. It contained saccharine matter.

While these cases prove the efficacy of this mode of treatment, they shew the importance of animal diet in this disease.

commonly colicive at first. In the course of the first week, the head-ache and pain of the back became excruciating, and were often accompanied with loathing. **EPIDEMIC FEVER** of 1789, AND 1790, was without any remarkable heat; but in some cases, profuse watery sweats took place. In the winter of 1789, and in spring 1790, an epidemic fever prevailed much in Manchester and Salford. The preceding summer and autumn had been uncommonly moist, and the month of November set in with much cold and heavy rain. The symptoms were, pain in the head, back, and limbs; sickness; cough; and in several cases towards the end of the winter, great pain and difficulty in voiding urine. The pulse was quick, but soft; and sometimes intermitted in the first days. The tongue was generally white; sometimes with a longitudinal brown stripe in the middle. The patients were commonly

commonly costive at first. In the course of the first week, the head-ach and pain of the back became excruciating, and were often accompanied with low delirium. The skin was, at this period, in most cases dry and harsh, without any remarkable heat; but in some cases, profuse watery sweats took place. In the second week, the dryness and harshness of the tongue increased; the eyes became inflamed; the patient was inattentive to what passed around him, but restless. The cough increased to a distressing degree; and costiveness became habitual. At the end of this period, the lips and teeth had generally contracted a black fur; the patient often groaned, and sometimes shrieked aloud: the skin was parched and burning; and the disease became a formed typhus.

The epidemic was most prevalent from November to January, in the winter,

winter, and appeared again in the succeeding April. When the first frosts set in, most of my patients who then had the fever became delirious. Those women who recovered, were commonly affected with hysterical symptoms, after the fever disappeared. The first instance of this kind was somewhat intricate. After the abatement of all the feverish symptoms, the patient was seized with violent sickness and vomiting in the evening, which continued to a very late hour. An anodyne was prescribed, and she was better next day. But the sickness and vomiting returned, on the succeeding evening, and I was then told, that she had thrown up some green matter. On particular inquiry, I found that some degree of the globus hystericus attended the paroxysm. The goodness of her pulse every morning, after a vomiting-fit of three or four hours, confirmed me in my opinion of the nature

nature of the complaint. Accordingly, I ordered draughts with asafœtida and opium, and found that the paroxysms yielded readily, and soon entirely left her.

The mortality in this epidemic was not great, though we had dreadful accounts of its ravages in some of the neighbouring towns. Out of the first ninety patients whom I attended in it, two only died. One of these had been confined to bed during a fortnight before I saw her. In general, those who were visited during the first three or four days of the disease, recovered very early. But when patients were suffered to linger for a fortnight or three weeks, before assistance was desired, of which I had too many instances, the disease proved tedious and difficult.

In the early stage, antimonial emetics, and gentle laxatives did eminent service.

service. The fever often disappeared, as soon as the bowels were cleared. In general, the patients bore purging well, and even required it repeatedly; the pulse commonly became firmer and more regular, after evacuations of this kind.

J. M. had been attacked with the usual symptoms of the epidemic, three days before I saw him. He was costive, and his pulse intermitted every fifth or sixth stroke. I ordered him five ounces of infusion of sena, which produced several loose stools. Next day, the pulse was regular, and the intermission was entirely gone. This is the only clear instance of the Solanian pulse that I have met with. After unloading the bowels, if the skin continued dry, and the pulse quick, a diaphoretic mixture was ordered, containing antimonial wine and laudanum, in the quantity of fifteen drops

drops of the former, and ten of the latter, every three hours. The use of diluents was enjoined; and a particular attention to cleanliness (the most difficult part of the process) carefully enforced. In all offensive houses, I obliged the inhabitants to white-wash the whole; and large jars, containing new-slaked lime, were placed in the chamber of every patient. When the disorder was accompanied with profuse sweats, the *spiritus ætheris vitriolici*, in doses of half a drachm, repeated every three or four hours, gave great relief. The pains in the head and back, when they resisted these methods, were effectually relieved by blistering between the shoulders. This remedy exerted particular power over the epidemic. A single blister removed every complaint, in many cases.

The dysuria, which prevailed in several instances where no blister had
been

been applied, gave way to the large use of diluents combined with mucilage of gum arabic, and to the interposition of opium.

The use of bark was seldom absolutely necessary, excepting when the disease had run into typhus. In the earlier stage, bark did not appear to accelerate the cure, and was only useful by removing debility, after the fever had disappeared,

In some of those unfortunate cases, where the patient had been confined to bed during three or four weeks, before recourse was had to the Infirmary, neither bark nor wine, though assisted by other stimulants, produced any effect on the disease. Even when I could depend on the regular administration of the medicines, I have seen patients waste away, insensibly to themselves, and to those about them; and after
lying

lying in a kind of middle state, not dead, but scarcely alive, expire at the end of some weeks. Several patients came under my care, during the intense heat of the last summer, who had been ill from three weeks to a month each, when I first visited them. Two of them* were in this state, and were evidently hastening to their graves, notwithstanding the free use of tonics and antiseptics; when the heat of the weather, and the closeness of their apartment induced me to think of applying the stimulus of cold, in the manner which has been successfully practised in some other hospitals.† I therefore ordered them to be washed with cold water, one very close even-

* Anne and Frances Fowden.

† Dr. Wright of Jamaica recommends cold lathing, even in the beginning of fevers, in warm climates. His confidence in the remedy was proved by his practising it in his own case. London Med. Journal, vol. VII. p. 110.

ing. The pulse was raised next morning, and they were more sensible. The ablution was repeated next night, and the favourable change continued. I then directed them to be completely immersed, afterwards to be well rubbed, with coarse towels, and laid into bed, with the lower extremities wrapped in flannel. The consequence was, an immediate appearance of recovery, which was followed by a regular progress to convalescence.

A third patient,* sister to the two former, contracted the fever, and in the course of a fortnight sunk into the same languishing condition. She was washed with cold water two or three times a week; was sensibly better after every ablution; and recovered completely.

A fourth patient,† about the same time, was seized with the cholera, then

* Jane Fowden.

† Thomas Gibson.

raging in the town. His vomiting and purging were soon stopped (I saw him on the first day) but a great stupor and prostration of strength remained. His pulse was hurried, his countenance yellow, and his tongue covered with a thick crust, brown in the centre. After using tonics and stimulants, and among the latter, blisters to the temples, with little effect, I directed him to be washed all over with cold water. It appeared to refresh him much; he was more sensible and attentive next day, and the ablution was repeated. He even became fond of it. In a few days he was able to come down stairs, but his friends were imprudent enough to let him indulge in animal food, which brought on a diarrhæa, and occasioned an entire change of the course.

Another patient, Jane Jones, caught the fever by lodging in the same house
with

with the three sisters already mentioned. She had been ill for five weeks before I was informed of her situation. The mistress of the house had admitted this person fresh from the country, after I had warned her of the danger of receiving new lodgers into a house infected in every room. Alarmed at the effect of her imprudence, when she found the girl sicken, she would not suffer me to be informed of her illness, though I was then visiting herself and three of her children, who successively caught the disease; and the secret was only betrayed by the screams of the poor creature, which were heard in the adjoining house. An inquiry took place, and I was made acquainted with the truth. I found her delirious, with a black fur on the lips and teeth; her cheeks extremely flushed, and her pulse low, creeping, and scarcely to be counted. Finding that the bark with stimulants, wine,

and the application of blisters produced no alteration, but that on the contrary she became more insensible, and passed whole nights in shrieking, I ordered her to be completely washed with cold water. The first and second trials produced no remarkable effect, but finding her no worse, I directed her to be entirely immersed. Next day, she was able to sit up. The remedy was repeated at proper intervals, and she recovered perfectly. All these cases occurred, during the excessive hot weather of July and August, 1791. How far they will apply, in cooler seasons of the year, must be determined by future observations.

The recovery from the state of typhus was, as usual, very gradual. In a few instances abscesses formed, and ended the complaint. Margaret Thompson, aged twenty-six, was admitted November 9, 1789, with the symptoms

toms of the prevailing epidemic, which she attributed to contagion. In the course of a fortnight, she was tolerably free from fever, and seemed to recover very quickly. But on the first day of a smart frost, she was induced to go out, and to walk as long as she could support herself. The fever returned next day, with great violence; a severe diarrhæa came on; and the cough became incessant, and violent. A constant delirium attended these symptoms, so that the case appeared entirely hopeless. Near three weeks were spent in combating these alarming appearances: her diarrhæa was then lessened, and she became rather more sensible. She now complained greatly of a pain in her right side, which kept her in constant agony, and obliged her to lie almost always on her face. Upon examination, I found a round hard tumour under the false ribs on the right side, deep seated, and not affecting the

colour of the integuments. She felt often a violent throbbing in it, and was seized with shiverings several times in the course of the day. She now passed under the care of another practitioner, and I only know, in general, that the tumour burst externally, and that she recovered. If, as there was reason to suspect, this was an abscess of the liver, the case may be added to the number of fortunate escapes.

In some instances, where constant stupor and low delirium prevailed, with redness of the tunica albuginea, and a dark-red fulness overspread the face, I found bleeding with leeches in the temples, succeeded by moderate doses of bark, combined with musk, very useful. Towards autumn, 1790, several cases of petechial fever occurred to me, and, in one quarter of the town, the typhus was complicated with an inflammatory affection of the peritoneum

neum. With the common appearances of typhus, there was pain and distention of the abdomen; the patient was sometimes obstinately costive, and again violently purged. Two cases of this kind proved fatal; one or two others recovered, by the timely application of blisters to the abdomen. Children only were thus affected.

The first instance that occurred to me, was that of John Scholfield, aged seven. He had pains in his head and back, but complained particularly of his belly, which was distended. He was alternately costive and loose; his pulse was weak; his tongue covered with a thick brown crust. His countenance was ghastly, and clay-coloured. He appeared to be sometimes easier; but a stupor came on, and he died on the eighth day of the disease.

On dissection, the whole intestinal canal appeared greatly inflated; in many places it was externally inflamed, but no marks of disease were discoverable within the cavity of the tube. A thick inflammatory exudation was spread over the whole surface of the peritoneum, which, in several places, gave an appearance of adhesions between the turns of the intestines.

In the other fatal instance of this disease, the patient was covered with petechiæ, from the first attack. Perhaps local inflammation is more commonly joined with typhus than we are aware. Sir John Pringle's dissections prove, that suppuration in the brain is no unusual effect of such fevers; and in different seasons, the determination seems to be made to the bowels or lungs, according to the state of the prevailing epidemic.

In the course of the last twelve months, I have met with several instances of putrid fever, in young girls, accompanied with broad maculæ, on the body and limbs, and a gangrenous state of the labia pudendi. The parts were greatly tumefied, and extremely painful. It was a very fatal complaint.

J. C. was brought to me as a paralytic patient. The motion of the right side was nearly destroyed; his speech was greatly impeded, and his eyes were wild and distorted. On inspecting his tongue, I perceived a thick feverish crust, with a brown list along the centre, and his pulse was hurried. He had been ill for some time, and I was told by his attendant, that he was at first attacked with strong feverish symptoms. Even after the paralytic appearances, he continued to complain of rigors, and of pain in the small of his back. All these circumstances gave

gave suspicion that typhus was the original disease, though the paralysis was now the most alarming appearance. He died the next day.

On examining the brain, a livid depression was remarked on the upper part of the lateral lobe of the left hemisphere. Under this, an abscess was found, containing a large quantity of pus, and extending into the left ventricle. The weight of the fluid made that part of the hemisphere protrude so much, that only the right side of the corpus callosum was visible, when the hemispheres were separated in the usual way, to obtain a view of that substance. Another abscess was discovered in the same hemisphere, which did not communicate with the former. Suppuration had taken place in the right hemisphere, and the ventricle of the same side was full of pus. The spinal marrow was flattened, appeared

peared not more than half its natural size, and was surrounded with water.

Fevers of this species always exist among the poor, in certain quarters of this town; and their ravages are only checked by the privilege which patients in indigent circumstances enjoy, of being visited at their own houses by the physicians of the infirmary. As the sick are equally apprehensive of the attack, and instructed in the means of procuring assistance, they commonly apply early to the infirmary, and are often seen in the first days of their illness. An opportunity is thus afforded of cutting the disease short, and of using precautions for securing the rest of the family from the effects of contagion. But the abuses which perpetuate the germ of the disorder cannot be remedied by the activity of any individual, or the succours of any charitable institution now existing. It will

will not be useless, however, to point them out; if they cannot be entirely done away; they may be lessened; and though a spirit of benevolence already prevails among the inhabitants of Manchester, it may add strength to its exertions to shew, that the health of the rich is often nearly connected with the welfare of the needy.

1. The mean lodging-houses, in the out-skirts of the town, are the principal nurseries of febrile contagion. Some of these are old houses, composed of very small rooms, into each of which three, four or more people are crowded to eat and sleep, and frequently to work. They commonly bear marks of a long accumulation of filth, and some of them have been scarcely free from infection for many years past. As soon as one poor creature dies, or is driven out of his cell, he is replaced by another, generally from the country, who

who soon feels in his turn the consequences of breathing infected air. During all this time, the master of the house is totally regardless of the misery before his eyes, while he and his family remain untouched; and it requires some exertion to produce any attention to cleanliness or ventilation. The latter object, indeed, can be very imperfectly obtained in many of these houses, when they are situated in dark narrow courts, or blind alleys. In most of these places lodgers are received. The consequence is, a perpetual succession of fever-patients in them. In other parts of the town, the lodging-houses are new, and not yet thoroughly dirty, but in these the upper story is laid into one room, directly under the tiles, pierced through both by the sun and wind. In this room eight or ten people often lodge, and as the beds almost touch one another, the contagion of fever, once introduced,

troduced, can hardly be prevented from spreading. But it is chiefly in old houses, confined in narrow passages, that contagion is produced. Of the new buildings, I have found those most apt to nurse it, which are added in a slight manner to the back part of a row, and exposed to the effluvia of the privies.

2. The custom of inhabiting cellars, also tends to promote both the origin and preservation of febrile infection. But even in them, the action of filth and confined air is always apparent when fevers arise. I have often observed, that the cellar of a fever-patient was to be known by a shattered pane, patched with paper, or stuffed with rags, and by every external sign of complete dirtiness.

3. After all that has been done for the ventilation of cotton-mills, I fear that

that fevers are still produced in some of them. I attended several patients, last summer, in the worst state of typhus, who had all worked in one cotton-mill, and all of whom became ill about the same time.

4. Other permanent causes of the production of contagion, are, want of proper food and clothing, sleeping on the floor of a damp cellar, with few, or no bed-clothes, and the constant action of depressing passions on the mind. These causes also increase the danger of the disease in a very great degree. I have seen patients in agonies of despair on finding themselves overwhelmed with filth, and abandoned, by every one who could do them any service, and after such emotions I have seldom found them recover:

*Illud in his rebus miserandum et magnopere unum
Ærumnabile erat, quod, ubi se quisque videbat
Implicitum morboꝝ morti damnatus ut esset,
Deficiens animo mæsto cum corde jacebat
Funera respectans, animam & mittebat ibidem.*

Lucret. lib. VI.

5. The

5. The same inattention in buying infected clothes prevails among the poor in Manchester, that is noticed by authors, as extending the plague in the Turkish dominions. When a fever seizes one or more of the members of a labouring family, as those who act as nurses are debarred by that duty from working, every part of their furniture that can be disposed of, is gradually sold for subsistence. At length, all but the sick are almost stripped even of their bed-clothes, to support life, and the action of hunger, dampness and despondence prepares fresh victims to the disease among the rest of the family. The clothes thus disposed of, thoroughly penetrated by contagious effluvia, are purchased by healthy persons, without suspicion; and thus fevers may often arise among the servants of the rich, as well as by their incautious visits to the sick. It may be a practice occasionally, with the broker, to
heat

heat such articles in an oven, but that is done with no design of destroying contagion.

If lodging-houses were licensed, and brought under the notice of the civil magistrate, many of the causes of fever might be prevented. They might be visited, by proper officers, frequently, and regular reports of the names, occupations, conduct, &c. of the lodgers, as well as of the state of the houses with regard to infection, might be laid before the magistrates of the district. It would not be difficult to discover, at what point the want of cleanliness becomes dangerous, and as far as scouring and white-washing can remedy that defect, the hazard might be prevented. But a considerable degree of trouble and expence would attend the efforts of the inspectors to preserve the beds and bed-clothes in tolerable order. Wretches are so frequently received

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into

into such places, in a state of extreme filthiness, that the most active benevolence must despair of supporting comfort in them by any exertions. For, as it is very difficult to convince the poor, that close and dirty rooms are noxious, there would be no great probability of their adopting willingly regulations enforced by authority. Where stubbornness and contempt would not avail, evasions would be greedily sought, and the vigilance of the inspectors baffled by every art of mistaken cunning.

To put them under some regulations, however, is certainly desirable for many other reasons. But a principal advantage, in a medical view, where the means of prevention should prove inadequate, would be the power of clearing an infected house of its inhabitants, on the representation of the inspectors, and of keeping it empty, till

till all necessary methods of cleaning and sweetening it should be employed. This plan would require the aid of fever-wards, to be established in different quarters of the town, to receive patients from infected houses, or from close cellars, or pent-up rooms, where the want of air and of proper attendance leaves little chance of escape to the sufferer. The parish-officers, at present, find clothes and blankets for the sick-poor, but beds should also be provided, on occasion. A plan similar to this has been actually practised at Bury,* in this neighbourhood, with success, and if the trouble would be greater in Manchester, the danger is proportionably great. Where so much care is already taken, to provide relief and medical assistance for the sick-poor, the superior duty of preventing their

* See Sir William Clarke's Address to the Inhabitants of Manchester, &c. on this subject, printed in 1790.

distresses may yet be hoped to come into action.*

This hope has been realized, even beyond my expectation, by the success of the fever-wards, established in 1796.

of

* I have met with an instance of phthisiasis, as the consequence of a fever, which arose in a dirty lodging-house in Salford. It was situated in a narrow covered passage, ending in a back-court; the walls appeared to have been overspread with filth for many years, and the rooms were crowded with beds, into which the most loathsome objects were admitted nightly for a few halfpence. Contagion had been introduced by some of those unhappy creatures, and the mistress of the house and her son were attacked by a typhus. She soon recovered, but he lingered in a weak state for a considerable time, and after being enabled to creep abroad again, was affected with phthisiasis. He applied to me, a year afterwards, to be received as an in-patient. The complaint was still going on, and he was less emaciated and enfeebled, than might have been expected. Such are the effects of the present method of lodging the poor. They are driven to hire disease, and when fevers prevail in the families inhabiting these cells, to undergo the horror of lying in the same room, and often in the next bed, to the dying or the dead. The charity of the eastern nations provided spacious accommodations for the traveller and the vagrant, in their Caravanserais. But the eastern supineness has suffered the noblest of those structures to contract the inconveniences incident to promiscuous resort. Among the capricious dispositions so frequently made of superfluous wealth, it is rather surprising, that no benevolent Quixote has ever thought of furnishing accommodations of a similar nature for the poor of this country; especially

of which an account will be found in another volume. I have some important additions to make, to the preceding observations.

especially as fancy has evidently been far stretched to discover or even to invent objects of posthumous charity. Perhaps it may relieve the waverings of some mind, to suggest a whimsical scheme, newer, and somewhat more respectable than a hospital for cats, a retreat for persons who are born to a particular surname, or a single night's shelter for ten poor men, "not rogues or proctors."* In a building on such a foundation, constructed with a view to proper ventilation, but excavated by flues, and capable of being occasionally heated by the steam of warm water, a straw-mat and a blanket would be luxury to a poor man, who would gladly pay an equal sum for admission, to that required by a keeper of fever-beds. A bath, in a proper situation, might be ready for the preparation of impure lodgers, and coarse, clean dresses of flannel might be furnished for the night by the fund, either gratuitously, or for a trifling sum. Such a place, properly superintended, might prove an asylum to those who wish to avoid guilt, and would assure the good conduct of every person admitted, during the night. Many of the wretches who now disgrace the public streets at midnight, would be happy in finding such shelter. These are distresses from which, in extensive towns, neither talents nor virtue will always secure the unfortunate, and their relief should not be trusted to the precarious aid of private benevolence. *Savage* is known to have slept in the ashes of a glass-house, and *Johnson* to have rambled all night through the streets of London, from incapacity to procure a comfortable lodging.

* For an account of the last Institution, see the *Antiquarian Repertory*.

The fever generally prevalent in Manchester, and the surrounding county, is a mild typhus. But in particular seasons, it is attended by symptoms which are not clearly indicated by practical writers, and which I think it proper to mention, because they are equally unexpected and distressing to the practitioner.

In the second, or third week of typhus, when the fever appears moderate, and the probability of recovery is strong, a sudden determination takes place to the head or breast, sometimes to the bowels, accompanied with extreme pain, and the patient is carried off in the course of a few hours. I have seen the metastasis, in the genuine typhus, and in very young subjects, as rapid as the translations in gout. If the patient survives these attacks, the fever sometimes changes its type. In one case, where a typhus was unusually protracted,

protracted, after several hazardous determinations to the stomach and bowels, the fever assumed the form of an intermittent, and the patient was recovered with great difficulty, by the use of the strongest stimulants.

The frequency of such accidental metastasis as that I have described, in our fever-wards, in 1805, and the spring of 1806, was truly alarming. Dissection threw little light on their nature, and only served to shew that they depended more on changes in the nervous, than the sanguiferous system.

Towards the end of autumn, we are generally visited by remittent fevers; and I scarcely recollect a season, in which some obstinate cases of this nature have not occurred, which resisted all the usual methods of cure. A succession of melancholy events of this kind, induced me to look for a more powerful

tonic than bark or steel, and from the analogy between intermittents and remittent fever, I turned my thoughts to the employment of Arsenicum album, for the revival of which, as a medicine, the public are indebted to the late Dr. Fowler. I soon had occasion to employ it, in some very dangerous, and tedious remittents, and I found it a safe and certain remedy. It generally lessens, if it does not suspend, the second paroxysm after it is exhibited, and it effects the purpose without producing the slightest disturbance in the habit. I have generally given, to an adult, five drops of the saturated solution, every four hours, and I have seldom found it necessary to exceed this dose.

In one case, where I ordered this remedy, the remittent had continued six weeks, in another, nearly two months, without any abatement of the symptoms,

toms, and both patients were sinking fast into the grave, when they were saved by the use of arsenic. The only sensible effects produced by it, are the removal of the crust on the tongue; the appearance of a sediment in the urine; and encreased firmness of the pulse.

Having frequently experienced the efficacy of this medicine in remittents, I was induced to try it in the last stage of typhus, when neither bark, wine, or brandy, cold bathing, or occasional doses of cayenne pepper, had the effect of rousing the powers of life, or of lessening the thick crust, which lay like a black marble slab on the tongue. With such cases, every man in extensive practice must have met; it has often been my lot to encounter several of them, in the course of a few weeks. I found that the arsenical solution uniformly cleared the tongue, in two or
three

three days, and that the fever gave way rapidly afterwards. The favourable alteration, after the change of medicines, was too great to admit any doubt respecting its cause, and the number of such events, which I have witnessed, leaves no room for uncertainty. It is a singular advantage, attending the use of arsenic, in these cases, that it does not operate as a general stimulant, but merely as a sound tonic. Neither the concomitancy of cough or dyspnæa, therefore, prohibits its use in typhus. The only contra-indication is a tendency to diarrhæa, or nausea. Yet I have been able to give the solution in the dose of two or three drops for a dose, even when the bowels have been very irritable, by combining it with a small quantity of laudanum.

As soon as the feverish paroxysms are stopped, I think it prudent to suspend the use of the arsenical solution, and

to support the patient with bark, and different cordials. But I never saw any inconvenience from the use of the mineral, excepting a slight soreness of the throat and lips.

I also make it a rule to delay the exhibition of this medicine, till it is evident that the usual remedies are not likely to succeed: in producing an agent of such powers, there ought to be a "*dignus vindice nodus*;" and its administration ought to be considered as a matter of solemnity, as its abuse would prove so extremely pernicious, in rash and ignorant hands.

In the course of the last twelve months, I have met with some cases of typhus, in which there was a very distressing dyspnoea, which continued during the whole fever, without any appearance of inflammation. In general, the difficulty of breathing was continual,

continual, though aggravated during the febrile exacerbations, but in one case, respiration was perfectly free, during the intervals of the paroxysms, and regularly became very difficult on the return of the hot fit.

In these circumstances, which precluded the use of bark, I had recourse to the extract of the Ratania root, lately introduced, (at least, lately known by that name) from South America, and I have found it a valuable substitute for the chincona. The intense bitter of the extract is softened to an agreeable astringency, when it is dissolved in water, (by the intervention of a little alcohol) in the proportion of from five to ten grains to an ounce, and its effects on the patient's strength and spirits are peculiarly cheering. Its flavour, in this state, strongly resembles that of port-wine, and its operation in fever appears to me very similar.

The

The extract of *Ratania*, notwithstanding its sensible quality of astringency, does not produce costiveness; in this respect also it frequently merits a preference to Peruvian bark.

Since the establishment of our feverwards, I have carried the practice of cold bathing to a considerable extent, in the latter stage of typhus, and in the commencement of *scarlatina anginosa*—I shall make some observations on this subject, in the third volume.

DILATATION OF THE HEART.

Præternatural enlargements of the heart and great blood vessels appear to be more common than authors would lead us to suppose. In the course of the last two years, I have seen a considerable

siderable number; but at present I shall chiefly mention those which have terminated fatally. I have generally found them accompanied with dropsical swellings and much flatulence; frequently with a cough and spitting, almost always with œdema of the face. There is sometimes violent pain across the breast, attended with frequent delirium; sometimes the pain is felt across the lower part of the abdomen, especially when a degree of inflammation has taken place in the heart. The progress of the disorder is very unequal. Sometimes the palpitation is so violent, that the patient seems ready to expire, yet in the course of a few hours, it will abate, and the patient will be able to walk out of doors, insomuch that the disease frequently seems to be in a retrograde state. A patient under my care, with a considerable dilatation of the heart, after having undergone violent pains across the thorax, succeeded

ceeded by fainting, is now, at the end of a year and half from the beginning, considerably easier, and has been for some time free from pain and delirium. Lastly, death often happens suddenly, in such cases, without any rupture of the heart.

When the apex of the heart strikes very low, it always gives the impression of a much greater dilatation than actually exists. The stroke will be felt, for example, between the eighth and ninth, or the ninth and tenth ribs, when the ventricles are very little enlarged beyond their usual size. The most certain sign of dilatation, is the jarring sensation given to the hand, by each systole. The stroke seems restrained, and is succeeded by a kind of thrilling, which cannot be clearly described, but is entirely different from the shake of a palpitation. It is necessary to be very cautious in deciding whether

whether an enlargement exists, for I have known the common palpitation in chlorosis pronounced a dilatation of the heart, and the patient nearly destroyed by the consequent mode of treatment. The pulse is very irregular; sometimes feeble, small and intermitting; sometimes extremely quick and hard; or jarring, like the systole of the heart itself. When the palpitation is violent, the head is affected with strong distressing pulsations, which patients often compare to the strokes of a large hammer. I have sometimes found this palpitation in the head more uneasy, and more complained of, than that of the heart, even when the latter was evidently dilated. Fainting fits often attend this stage of the disorder.

These are the principal facts respecting this disease, which I have collected from my observations and dissections. I shall now illustrate them by cases.

William

William Cavanagh, aged nine, admitted in March, 1790, had complained for a month before, of violent palpitation of the heart, which had then become constant; of a troublesome cough, and frequent pain in the abdomen. His legs were anasarcaous, and his face was bloated. His disorder began with a slight fever, which ceased about the fourth day. He had suffered a feverish attack, once a-year, for two or three years past, but never experienced the palpitation till the last accession. The stroke of the heart, when I saw him, could be distinctly felt between the ninth and tenth ribs. Every pulsation shook him strongly, and he was so much distressed, as to be unable to lie down, or to rest above a few minutes, in any other posture than leaning on a table breast-high, upon his forehead and elbows. His pulse was variable; sometimes quick, and rather full; sometimes low and

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hardly

hardly perceptible. He never complained of any pain in the chest. Under these complaints he struggled upwards of three weeks, growing worse from day to day, and at last expired without any agony, after having spit blood for a few hours. The pain in the abdomen had been very troublesome, for some days before his death.

On opening the body, the abdominal viscera appeared perfectly sound. In the thorax, the heart was not much enlarged, but extremely thickened; the pericardium adhered to it closely in its whole circumference, and indeed was almost become one substance with it. Adhesions, of uncommon thickness and strength, were also formed to the lungs and pleura, in every direction. One chord, about the thickness of a man's little finger, tied down the apex of the heart to the pleura, on the left process of the diaphragm. The lungs were sound.

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This case might afford many reflections. The signs of extraordinary dilatation of the heart existed here, with little real increase in the size of that organ, while (excepting the cough*) no symptoms of carditis appeared, unless the pain in the abdomen ought to be reckoned such. The only circumstance that could give suspicion of the latter, was the quick progress of the apparent dilatation, yet in such an affection, there was no strong reason to suspect inflammation, at the distance of a month from its commencement. May we not, therefore, keep the probability of chronic inflammation in view, when the signs of dilatation are preceded by fever, or attended with febrile symptoms; when their progress is unusually rapid, without any obvious cause; when the pulse is often quick;

* Senac has explained the concomitancy of this symptom with diseases of the heart and pericardium, very judiciously. *Traité de Cœur*, tom II. p. 357.

when there is a troublesome cough; and when there is much pain in the lower part of the abdomen, without any affection of the excretions? The following case will add force to the observation of the last symptom.

E. D. aged seventeen, had pains in her feet, which sometimes produced slight swelling and redness of the parts. The pains were very irregular; sometimes in one, sometimes in both feet. When they ceased entirely, she felt great sickness, dejection of spirits, and a tendency to faint. She wasted daily; the pains often shifted to her knees, and when violent there, the skin was tinged with a dark-green colour. At length she became comatose, but complained frequently of pain in the lower part of the abdomen. She died at the end of four months from the first attack. On dissection, the contents of the abdomen appeared entirely sound; but

but the pericardium adhered closely to the heart, in the whole of its compass, and the latter appeared thickened from inflammation. The next case may perhaps assist us in distinguishing, during life, the part of the heart affected with dilatation.*

John Rowbottom, already mentioned among the dropsical patients (history X.) some time after the second removal of his swellings, was attacked by a severe diarrhæa, which was removed

* Mr. Senac has adverted to this circumstance, but with full conviction of its obscurity: "Il est certain que les dilatations des
" diverses cavités (du cœur) peuvent être distinguées. En general
" les battemens du cœur ne sont pas violents quand le ventricule droit,
" ou le sac de ce ventricule, sont extrêmement dilatés; à peine les
" dilatations produisent elles des palpitations; dans beaucoup de cas,
" les malades, sentent seulement un grand poids dans la region du
" cœur."—"Les dilatations du ventricule droit & de son oreillette
" produisent toujours des battemens dans les veines du col—"
" L'absence de ces battemens, lorsqu'une dilatation du cœur est
" constatée, établit cette dilatation dans le ventricule gauche; mais
" ce ventricule dilaté se manifeste souvent par un autre signe; si les
" artères sont libres, leurs battemens sont extrêmement violents."
Traité de Cœur, tom. II. p. 327-8.

by opiates and astringents. He now complained that the palpitation was more troublesome, and that he felt it lower. No great difference, however, could be discovered by the hand; but the pulsation gave the impression of its being felt through a bladder almost full of water.* After the diarrhæa stopped, his swellings rose again, and were again removed from his legs by the use of digitalis. The abdomen did not decrease much under this last course, and after lingering in a complaining state, but not apparently worse, he died suddenly on Saturday morning November fifth. When the body was opened,† a great quantity of fat was

* Mr. Senac observes, that the fluctuation of water contained in the pericardium, may be distinctly felt, during violent palpitations, between the third, fourth, and fifth ribs. *Traité de Cœur*, p. 361.

† This dissection furnishes an exception to Mr. Senac's first rule for distinguishing dilatations of the sinus venosus. Indeed he does not seem to have attended sufficiently to the circumstances of the pericardium, one of which, adhesion or effusion, almost always accompanies dilatations, and affects the stroke of the heart in a particular manner.

observed,

observed, between the integuments and the muscles of the abdomen. There was much water within the peritoneum, and several large hydatids appeared in the lower part of the cavity. The liver was extremely enlarged, and scirrhus: at the first view of the viscera, it covered the stomach completely. Several irregular, white plates, of a cartilaginous nature, shewed themselves on the surface of the spleen, which was otherwise sound. The pancreas was somewhat indurated. The mesenteric glands were very much enlarged and hardened. On examining the external appearance of the intestines, marks of inflammation were very discernible; when part of the canal was opened, the villous coat was found inflamed to a considerable degree. This affection seemed to run through the whole. The kidneys were in a natural state.

In the thorax, a great quantity of water was found, with some hydatids. The pericardium was quite full of water. The right auricle, and sinus venosus were enlarged to such a size, as almost to equal the ordinary bulk of the left ventricle. The left auricle, and both ventricles were nearly in the usual state. The lungs were sound, but small.

When the pulsation, in such cases, feels remote,* and extending across the breast, as well as downwards, and when the apex of the heart does not strike the ribs very forcibly, may we not conjecture, from this narration, one or both auricles to be affected, and prognosticate a less speedy termination of the disease? This case also proves the utility of employing diuretics, even where permanent læsions of the viscera exist. Rowbottom was emptied by me-

* Diemerbroeck has adverted to this circumstance.

dicine three times; his life was thus prolonged, and its duration rendered more tolerable. The power of digitalis over hydrothorax was not sensible, however, during the last course of that medicine.

No doubt, the quantity of water effused within the thorax, and the cavity of the pericardium itself, must have had a share in the peculiar impression given by the systole in this case; but from the long intervals of relief afforded, I cannot suppose the effusion to have been in equal quantity, at every period of my attendance. An attention to this circumstance is of great importance in practice, because much relief may be administered by a proper exhibition of diuretics, when there is reason to suspect the presence of water in the pericardium. It is on this supposition that I account for the relief experienced by Rowbottom, and the following case will place it in a stronger point of view.

James Hamilton, aged eleven, came under my care about the beginning of December, 1791. He was affected with a constant palpitation of the heart, which had begun in the preceding May, and now prevented him from lying down, or from resting in any other position than that of leaning on his elbows. The stroke of the heart was perceivable almost under the false ribs, and extended across the thorax, but was most forcible a little below the natural place, between the fifth and sixth ribs, rather obliquely, however, than directly. The stroke was soft, but vibrating, distant, and somewhat undulating. His legs were swelled slightly, and his urine was rather less than natural. He had a very troublesome cough, accompanied with little expectoration, and heaved strongly in respiration. His face was pale and emaciated. The pulses in his different wrists were not synchronous, either with the heart or with each

each other. From these circumstances, there was reason to suspect water in the thorax, and particularly in the pericardium. I put him on a course of spiritus ætheris vitriolici, with small doses of laudanum. In a short time he began to discharge more urine, and the palpitation was sensibly relieved. He was then able to lie down, and to sleep on either side without disturbance. The swellings of his legs likewise disappeared. At the end of a few weeks, he was tolerably free from uneasiness, and his cough began to leave him. The stroke of the heart was now more circumscribed, and felt firmer, though still of the aneurismal kind, and he was sensible that it was higher in his chest. About this time, a complaint in his stomach occasioned the omission of the diuretic, for a few days. During this interval the palpitation again increased, and his legs swelled. After clearing his bowels, however, the symptoms were

were again relieved, by resuming the diuretic course. In the course of my inquiries, I found that before he came under my care, he had been attended by another physician, who, among other pectoral medicines, had ordered him squills. An increase of urine was the consequence, and temporary relief was obtained. He is at present tolerably easy and cheerful, and the disorder does not seem to make much progress. Digitalis may prove very useful in similar cases, by lessening the impetus of circulation, as well as by promoting the flow of urine, and thus contributing doubly to relieve the patient's distress. We can expect little more than to sooth, and perhaps to prolong existence in such cases.*

* Baglivi says, with his customary good sense, "in morbis pectoris, semper ducendum esse ad vias urinæ:" De Asthmate.—Probably, the great efficacy of squills, in disorders of the breast, has been often owing to the unnoticed action of the remedy as a diuretic. It is remarkable that Baglivi orders the julepum tabaci in asthmatic cases.

Palpitations are often so severe, as to excite suspicions of enlargement of the heart without reason. It appears, both from Cavanagh and Rowbottom's case, that the apex of the heart may strike very low, although the ventricles be not dilated. And I have found the most terrible palpitations yield to anti-spasmodics or tonics, used according to the patient's general habit, and to the attending symptoms.

E. H. aged eleven, belonged to an unfortunate family, which was reduced to pass the winter of 1789 in a cold, damp cellar, without beds, and very thinly clothed. They slept on tattered pieces of carpet, covered with a little straw. A fever soon rose among them, but it was this girl's lot to be seized with a violent palpitation of the heart. Every stroke of the pulsation raised up her clothes, so as to be visible at some distance, but the apex of the heart was felt

felt nearly in the usual place. She took tincture of castor, in doses of thirty drops, three or four times a-day; and this, with attention to her clothing and diet, subdued the palpitation, in the course of a few weeks.

But if we are liable to deception from the violence of such signs, there are other cases, in which the symptoms of dilatation are very trifling, and extremely obscure. Some symptoms appear, but they are misunderstood or neglected; the patient appears better, or at least no worse; and hopes of recovery are given. In the height of this security, the fatal stroke arrives: every one is astonished; and an event which ought to have been foreseen and foretold, passes for sudden death. In the following case, the symptoms of two fatal diseases, both exhibiting themselves under slight appearances, were combined. It will serve as an example of

of the treacherous calmness, with which disorders both of the heart and liver sometimes proceed.

Margaret Ellis, aged twenty-three, was first admitted an out-patient, on account of amenorrhæa, which was then her principal complaint. She had sometimes swellings of her ancles towards evening. After some time, she complained of a cough, and uneasy palpitation of the heart. She was then made an in-patient, about the middle of April, 1791. In addition to her former complaints, she had now pain in the region of the liver, difficulty of breathing, and a quick pulse. Her face was bloated, and had a purple cast. She took soluble tartar in laxative doses, but grew worse, and died suddenly one evening, just after appearing more cheerful and easier than usual. On opening the body, the liver bore marks of chronic inflammation on the whole
of

of its surface; the other abdominal viscera were sound. The thorax was full of water; the lungs were considerably diseased. The heart was much enlarged, and quite full of blood, in all its cavities.*

The duration of complaints of this kind is very various. Even when dilatations of the heart can be ascertained by the progressive descent of the apex, long intervals are sometimes indulged, during which the patient can use moderate exercise with tolerable ease. In other cases, the disorder begins, and terminates fatally, in the course of two or three months. The length of the complaint has varied, within my own observation, from a quarter of a year to nine years. There is likewise much difference in the sufferings of the patients. Sometimes, as was Cavanagh's

* See observations by Senac on this subject, tom. II. p. 415.

case, it is dreadful to witness them ; in other instances, like that of Ellis, the palpitation is only occasionally troublesome, and is easily borne in general. All the persons who have come under my care in this distemper, have been young. Of eight cases, which I have seen within the last two years, none of the patients were above thirty years of age. Some were under ten. A man about twenty-five years old, who consulted me seven years ago, had a dilatation of the heart, brought on by hard drinking, which killed him in the course of twelve months. In other cases, I have found the disease occasioned by raising great weights, or by too long a continuance of much bodily exertion. Frequently no particular cause can be assigned for its commencement. It sometimes appears after slight feverish attacks. I have met with two instances of this kind. But in such cases, either a slight degree

of inflammation must be supposed to have affected the heart, or an original weakness of the organ must have given a predisposition to the complaint. It is well known, that enlargements of the heart are frequently observed, in patients who die of typhus. In irritable habits, and young subjects, therefore, an irregularity in the circulation, however produced, whether by fever, or, as in Ellis, by the suppression of a constitutional discharge, may create the first tendency to this complaint. In chlorosis, such a tendency is always remarkable; and the successful treatment of that disorder, by the most invigorating tonics, may suggest a doubt, respecting the propriety of treating all incipient dilatations of the heart by evacuation. In other partial congestions, and in palsies, tonics, and even direct stimulants are given with advantage, to recover the tone of the dilated or ruptured vessels. And the

the tendency to deliquium, the weak, flatulent state of the stomach and bowels, the dropsical symptoms, owing to a delay in the return of the blood, and the languid feelings of the patient, in the *first stage* of the complaint, seem to point out a careful exhibition of tonics, as a probable method of prevention.* Even at a very advanced period, one of my patients indulged himself in the use of wine, contrary to my directions, and thought himself relieved by it; and Rowbottom, towards the close of his disorder, took four ounces of wine daily, with evident benefit. Great attention must undoubtedly be paid, in determining on such a plan, to the sex, the age, the peculiar habit and circumstances of the patient. For no case can be supposed, in which the method adopted tends more immediately to suppress, or en-

* I observe that Mr. Senac recommends the use of chalybeate waters, in beginning dilatations. *Traité du Cœur*. tom. II. p. 330.

courage the disease. When the dilatation has proceeded to a considerable degree, indeed, direct stimulants are generally improper, but when great languor and debility attend, they are sometimes admissible as palliatives. Indeed I apprehend, that no exclusive rule of practice can be formed in this disorder, which will not be found often useless, and sometimes prejudicial.

I shall only add, as a farther caution, that I have found a pain extending across the breast very troublesome, in conjunction with flatulence and violent palpitations, and I have seen medical men disposed to treat it as a symptom of inflammation or dilatation. But a close attention has convinced me, that it was owing to a spasmodic affection of the oesophagus; and it has been removed accordingly, by the exhibition of tonics and antispasmodics. I suspect that this symptom has sometimes been described as a case of angina pectoris.

MURIATED BARYTES.

The high character with which this medicine was ushered into practice, induced me to order it in several scrophulous cases. It is needless to give a particular account of my observations, for I have never found any sensible effect from it, even in doses of twenty drops, given twice or thrice a-day; excepting in two cases. There could be no doubt respecting the preparation of the specimen I used, as it was a saturated solution, made by Mr. Cooper and Mr. Watt; and I was always attentive to its being given in distilled water. In the two instances where it appeared to do service, the good effect was not very remarkable. I cannot help suspecting, that the only benefit to be

O 3 expected

expected from it, must arise from the action of the acid, either not completely saturated, or not destroyed as a tonic, by the mineral. Several patients, whom I now attend for scrophulous complaints, are taking the acid alone with apparent benefit, who had used the muriated barytes, without experiencing the smallest alteration in their health.

REMEDIES OF INSANITY.

It is very difficult to describe complaints of this kind; and expectation is disappointed in the event so frequently, that practitioners are easily discouraged from attempting improvements in the method of cure. Books are so defective, on this subject, that analogy must be the principal guide, in counteracting these dreadful affections, as they resemble, more or less strongly,

nervous

nervous and hypochondriacal complaints. I have used the different methods recommended by the few good writers on insanity whom we possess, and have joined those employed by physicians now eminent for the cure of such distempers. Some of my observations follow.

1. *Tartar emetic.* The exhibition of this medicine, in nauseating doses, is a favourite method at present, in maniacal cases. I have used it in six cases, in two of which the patients were extremely furious, and have found it of little efficacy, excepting in one instance. It was that of a robust woman, about twenty-five years of age, who had been insane a few years before, and had now relapsed into a state of furious mania. Her tongue was foul, and her pulse quick. She took emetic tartar, in sufficient doses to support a constant slight nausea, and had a blister

applied, about the same time, to the crown of her head. In a day or two, she appeared rather more composed, and as she found farther relief from the continuance of the medicine, it was given for a week together. At the end of that time, she was sensibly calmer, though there was yet no appearance of recovery. I then dropped the medicine, put her on a course of whey, and on low diet, and kept her bowels freely open with magnesia. This method was continued for fifteen days. She was then ordered, in addition, an opiate every night, at bed-time, and was occasionally purged with black hellebore. Signs of recovery began to appear, under this method; she became dull, and at last tractable and quiet. Her reason returned gradually, and after being completely rational for more than a month, she was discharged cured, at the end of four months from the time of her admission.

2. *Camphor.*

2. *Camphor*. This remedy has been strongly recommended in cases of insanity. I wish I could add my testimony in its favour, but I have found it totally useless in these disorders, in all kinds of doses. I have given it with great attention in eight cases without any advantage. T. R. about twenty-eight years of age, a strong active man, formerly addicted to debauchery of every kind, came under my care, about a year ago. He was in a state of the highest fury, slept none, and raved without intermission. I gave him fifteen grains of camphor, with two grains of opium, and finding that produce no effect, added eight or ten grains of musk. As the mania did not lessen, I went on, till he took two drachms of camphor, a scruple of musk, and eight grains of opium, a-day. This quantity did not produce sleep, nor make the smallest impression on the disease; I therefore discontinued it, and had recourse to,

3. *Opium*.

3. *Opium alone.* The favourable account of the effects of opium alone, given in large quantities, which BERNARD HEUTE has produced, in the appendix to Wepfer's *Historiæ Apoplecticorum*, induced me to try it with this patient. Accordingly, the anodyne solution, prepared in Dr. Heute's manner, was given as he directs, till we reached the quantity of sixteen grains of solid opium in the day. The patient was not at all better, however, and I had recourse to other means. I have tried the power of opium alone, in several other cases, though not to an equal extent, but with no sensible benefit to the patient.

4. *Digitalis.* Since this remedy became fashionable, it has been sometimes employed with success, in cases of melancholy. The sympathy often observed between the kidneys and the brain, has induced practitioners to use
diuretics

diuretics for the removal of insanity, and they are said often to do service. When a medicine, like digitalis, unites strong diuretic to narcotic powers, considerable advantage may therefore be expected from it. I have, accordingly, given this remedy even to nauseating doses, but with no advantage. It never suspended the appearances of insanity for a moment. That other diuretics may be useful, I have no doubt, for I have found the infusum diureticum of the former dispensatory, (a cold infusion of salt of tartar, and wormwood ashes) give some relief.

5. *Antiphlogistic regimen.* Many of the patients, received into our lunatic hospital, bring on their disorder by hard drinking. In such cases, low diet, and saline purgatives generally restore health in a moderate length of time. Under such circumstances, any attempt to suppress the disease suddenly,

denly, I apprehend, would be unsafe. Perhaps maniacal paroxysms have something like a period, and ought to be considered as an acute state of the disease. I have used antimonials in them, however, without success.

6. *Bark with opium.* In cases of deep melancholy, where there was evidently a relaxed state of the solids, and in maniacal paroxysms, where the appearances resembled those of the low delirium in fevers, I have employed the bark, combined with opium and aromatics, with the best effects. I shall give one case, as an example of this method of treatment.

A. W. aged sixty, admitted August 30, 1791, laboured under a total alienation of mind. Her aspect was extremely dejected; her skin yellow; she often groaned and wept, and was perpetually muttering to herself. Her pulse

pulse was low and languid. She was ordered two drachms of the electuarum peruvianum, and two grains of opium, morning and evening. For some days, little alteration was perceivable, but about the twelfth of September, she was well enough to be allowed the liberty of the gallery, unbound. As she now slept well, I did not think it necessary to increase the quantity of opium, and she went on as usual. At the beginning of October, her reason had returned in a very great degree. Her legs now began to swell, but were soon reduced, by rubbing them with flour of mustard. She recovered gradually but steadily, and was dismissed perfectly well, on the twenty-ninth of October.

7. *Bathing.* The repeated use of bathing, either warm or cold, is strongly recommended by the best writers. In cases of melancholy, I commonly

commonly use the latter, in mania the former. If a maniac be continued in the warm bath for a considerable time, he will become entirely passive. Immersion for half an hour, exempting the head, of course, commonly produces this effect. T. R. the commencement of whose case I have given before, continued in a furious state, notwithstanding the different methods tried with him. I then determined to make him use the warm bath, for half an hour at a time, every other morning. I was induced to try this practice, by the praises bestowed on it, in Pomme's *Traité des affections Vaporeuses*, where he declares that he has kept patients with hysterical mania, in the warm bath, from ten, to twenty-four hours together. It required five or six men to carry our patient into the bath, but its relaxing effect was so great, that one person returned him to his bed, with as much ease as if he had

been

been a child. His limbs became entirely pliant, and he lay in a sort of comatose state, for some time after being put to bed again. Upon recovering from this degree of torpor, he was calm, and more rational. The crown of his head was also shaved, and a sponge filled with cold water was laid on it for a considerable time every day, changing the water as it lost its coolness. The bathing was continued, till the tenth of November, when his fury had completely subsided, and he fell into the harmless, stupid state, which usually succeeds maniacal paroxysms. He was soon allowed to walk in the gallery, and continued to recover his reason, by very slow degrees, till the beginning of March, when the only remains of his insanity consisted in a remarkable degree of sluggishness. He had been using tonics, moderate doses of opium and camphor, and occasionally, black helle-
 bore

bore as a purgative. I now ordered him to be electrified every day, which roused him considerably, and produced a rapid change. I kept him nearly two months in the house, after he became apparently well, to ascertain the permanence of his recovery, and he was dismissed, cured, on the fifth of May.

8. *Drains.* Melancholy and mania are sometimes produced by the suppression of habitual eruptions, or discharges, and sometimes cured by restoring, or imitating them. A few years ago, I was consulted by the friends of a young gentleman, who had fallen into a melancholy state. I found, in the course of my inquiries, that he had been subject, in spring, for several years, to an eruption of the herpetic kind, about the back part of his neck, extending to his right shoulder; and that on its failing to appear, he had once before become melancholy. It
was

was deficient at the time of my seeing him. I immediately ordered a seton to be passed at the nape of the neck. No change was observed, till it began to discharge. But when suppuration took place, at the end of three or four days, a very foetid matter began to come away, and the patient was evidently better. His mind became every day more and more confirmed, and with the assistance of exercise, sea-bathing, and a tonic regimen, he soon recovered completely.

L. H. aged forty-eight, admitted July 16, 1791, was in a very low, desponding state, and fancied she had destroyed part of her family. I put her on a course of camphor and opium, interposing the cold bath, and occasional purgatives; but she did not begin to recover, till the beginning of September, when I ordered a seton to be put in the nape of her neck. As

soon as it began to suppurate, she was sensibly better; she afterwards improved daily, and was discharged perfectly well, in October. Blisters generally answer very well, when patients are not sufficiently tractable, to submit to drains that require more management. But sometimes it is not sufficient to excite simple ulceration on the surface, for when a peculiar eruption has been suppressed, it may become necessary to renew it in a specific manner. I was informed, some years ago, of a case of epilepsy, brought on by the retrocession of the itch (in consequence of some external applications) which resisted all the usual remedies, and became more and more violent. The gentleman who told me the case, proposed to inoculate the patient for the itch. His expedient was adopted, and a plentiful crop of the eruption produced, which freed the patient at once from his fits. The cutaneous disease

disease was afterwards cured, with proper caution, and the patient restored to perfect health.

A peculiar affection of the skin frequently appears to usher in maniacal paroxysms, and sometimes to attend them throughout. The state of circulation on the surface, therefore, has always been an object of importance to me, and though I have sometimes failed in altering its morbid condition, yet I think it an indication never to be neglected. When critical eruptions do appear, in complaints of this nature, they give immediate relief.

I have sometimes been able to predict the return of maniacal fits, by observing a peculiar constriction of the skin of the forehead, attended with a slight leaden tinge; the patient's features commonly appear somewhat sharper than usual, at the same time.

9. *Bleeding, and topical evacuations.*

General blood-letting is a valuable remedy in young plethoric subjects, when the patient is not totally unmanageable. But in the frantic state, when almost every muscle is in violent action, it would be very difficult to perform it, and very dangerous to trust the wounded vessel to any bandage. Repeated bleeding, though so strongly recommended by Sydenham, would, I am persuaded be hazardous; for I have often had occasion to remark, that the strength of a maniac is easily, and sometimes suddenly reduced, by evacuating remedies. I have known a single vomit, by emetic tartar, bring on a dangerous degree of debility, in consequence of a brisk, but not uncommon evacuation. The action of cupping, leeches, and blisters is attended with no danger, and may almost always be made to answer the purposes of general blood-letting. And in all cases, it is a necessary caution,

that

that while maniacs bear large doses of opium and other sedatives with impunity, we must not reckon on their supporting remedies, which directly weaken the moving powers, in an equal proportion.

LINIMENT FOR THE LUMBAGO.

Since the publication of Dr. Home's prescription of a camphorated liniment, in this disorder, I have used his formula, or one nearly resembling it, in several cases, with success.

Mr. C——, in consequence of exposure to cold, complained of severe pain in the region of the loins, which obliged him to sit almost double. It had continued about a week, when I saw him. I ordered the camphorated

liniment to be applied: his pain was relieved next day, and at the end of three days was entirely removed.

Mr. —, after a fall from horse-back, was seized with acute pain at the upper part of the os sacrum, which affected his walking, and distressed him greatly on sitting down or rising up. After suffering it near a fortnight, and finding it rather increase than lessen, he applied to me. I directed the application of the liniment, which relieved him considerably in the course of a few hours. In less than forty-eight hours, he was completely free from pain, and suffered no relapse.

William Shipton, aged thirty-four, was admitted November 23, 1791, with sciatica and Lumbago, to a very considerable degree. He had been ill for several weeks. I ordered the camphorated liniment to be applied to his
back

back, and an issue to be opened by an escharotic, on the outside of the thigh, near the great trochanter. His back was much easier, in two days, and the plaster was renewed. In less than a fortnight, the lumbago was entirely removed, by repeated applications of the plaster, and he was discharged free from complaint, on the nineteenth of December.

I have employed this remedy in many other cases of lumbago, both in private and hospital practice, with success. The form which I have generally used in the latter is, two drachms of camphor, an ounce of basilicon, and half an ounce of black soap. It commonly removes the pain within three days, often in a much shorter time. I now add, with evident benefit, a scruple of the flour of mustard to this composition. I continue to find it very generally successful.

The powers of camphor, externally applied, especially when dissolved in a spirituous menstruum, appear to be very great. In a painful affection of the joints, of seven years standing, accompanied with exostoses of the internal condyle of each os femoris, and extreme stiffness of the articulations, I have found a solution of camphor in vitriolic æther suspend the patient's sufferings, after all other applications had failed. And in the case of a gentleman, threatened with a white swelling, the pain, which was very acute, was always taken off for three hours, after the use of the same composition.

EFFECTS OF DIGITALIS

IN ACTIVE HÆMORRHAGE.

The remarkable operation of digitalis, in retarding the pulse, has naturally suggested its use in cases of active hæmorrhage. It appears to be particularly indicated, where a tendency to relapse is preserved, after the usual methods of checking the evacuation have been carried as far as prudence, and the strength of the patient will justify. I have only tried it in the following cases.

1. John Fitton, aged forty-six, about six weeks before his admission, had overstrained himself in dragging a fish-pond. The consequence was, a spit-ting

ting of blood, which did not proceed to excess at any one time, but returned once in four or five days, upon very slight exertions. His pulse was hurried, irregular, and somewhat sharp; about ninety-five. He was inclined to costiveness. I ordered him nitre with conserve of roses, and occasional laxatives; enjoining him rest, a low diet, and the use of cold liquids. The hæmorrhage returned, however, two or three times in the course of a fortnight. I then brought him into the house, and gave him the *infusum digitalis*, in increasing doses. He began with one table spoonful in the day, and went as far as six without inconvenience. In three or four days, his pulse was sensibly slower, and more regular, but his cough was troublesome, for which he was ordered a linctus. He remained a fortnight in the house, without any return of the hæmorrhage, and was dismissed, apparently in perfect health,

near two months ago. I have not heard that the hæmorrhage has recurred.

2. John Walsh, aged twenty-two, was admitted, November 28, 1791. He had been subject to frequent returns of spitting of blood during four months, whenever he used exertion. He had also a tickling cough. His pulse was quick, but rather irregular. He took the *infusum digitalis*, in the same manner with the preceding patient, but never exceeded four table spoonfuls a-day. By the use of this remedy, the tendency to renew the disorder ceased, and he was entirely free from hæmorrhage, in the end of December.

3. — Higgins, aged twenty-eight, admitted December twelfth, had been seized with a spitting of blood more than a year before. He had lost a leg.

The

The hæmorrhage returned frequently, but never in a violent degree. He was seldom free from it above two days together. The infusum digitalis was ordered, in increasing doses. His pulse was oppressed, but not strong; upwards of ninety in a minute, and irregular. On the twenty-sixth of December, he had taken three table spoonfuls of his infusion a-day, without inconvenience, and had been free from hæmoptœ for a week. His pulse was more free and regular, and about eighty. The dose was ordered to be increased, and he continued to use the medicine till the middle of January, when he was discharged, cured.

4. James Sharples, aged twenty-three, admitted December nineteenth, was attacked by a spitting of blood three days before. He complained of tightness in his breast, heat, and of a tickling previous to the discharge of blood.

blood. His pulse was quick, and rather full. I ordered him to lose twelve ounces of blood, and afterwards to take the *infusum digitalis*, with the usual precautions. On the twenty-fourth, the spitting returned in a slight degree, occasioned by his being very costive, but ceased on procuring him a stool, by means of *oleum ricini*. He was then taking a spoonful of the infusion four times a-day. On the twenty-fifth, he was free from hæmoptœ; but his skin was hot and moist, his pulse considerably above an hundred, and his breathing quick. I therefore directed the dose to be increased, and enjoined a strict observance of the antiphlogistic regimen. On the twenty-sixth, his pulse was between eighty and ninety; on the twenty-eighth, it was about eighty-six, and he had experienced no return of hæmorrhage. He was again costive, and gripped. Three stools were procured by a
dose

dose of oleum ricini. On the thirtieth, he complained of sickness; he was then taking six spoonfuls of the infusion a-day. He had been free from the hæmorrhage for a week. His pulse was under eighty, and much calmer. I therefore desired him to lessen the dose of the infusion. On the thirty-first, the sickness had ceased; there was no hæmorrhage; his pulse was about seventy, and inclined to intermit. His cough was still troublesome. The dose of the infusion was then reduced to two spoonfuls a-day. His cough continued, but was less troublesome, on the fifteenth of January.

All these cases of hæmoptœ occurred to me, after the setting in of the hard frost, in December, 1791.

HYDROPHOBIA.

I have only met with one case of this disease. An account of it was published in the first volume of the Medical Facts and Observations, containing little more than a simple narration of the facts. I have thought, that the importance of the subject required its insertion here, with some additional remarks.

John Johnson, a labouring man, while he was at work in a by-street, some time in July or August, 1790, was slightly wounded in the left cheek, by a strange dog, which snatched at his face in passing. He suffered the
animal

animal to pass unregarded, and thought no more of the accident. The bite healed very quickly. In the succeeding October or November, he was attacked by stitches in the breast and sides, and a severe cough, which were all removed by the usual remedies. I could obtain no accurate information respecting these dates. In the end of November, 1790, his pneumonic complaints returned; he was then twice bled, and had two blisters applied, with considerable relief. On Monday evening, November twenty-ninth, he was persuaded to drink some warm gin and water, before going to bed. His wife observed that he took it with reluctance and apparent difficulty, and on inquiry, found that his attempts to swallow it gave him great uneasiness. This symptom increased very fast, and soon became the principal complaint; but during all this time, the circumstance of the bite was not recollected
either

either by the patient or his wife; nor did any suspicion of the true nature of the complaint occur to them. On Thursday evening (the fourth day) a neighbour mentioned the poor man's situation to a medical gentleman, and particularly dwelt on his aversion to liquids. This produced an inquiry whether he had been bitten by a dog of suspicious appearance. It was some time before Johnson could remember that he had received a slight bite, but the recollection alarmed him; and a recommendation to the infirmary was procured, in consequence of which, I saw him on Friday morning (fifth day).

I found him feeble, affected with tremors, and extremely irritable. His eyes were wild, yet fearful, and he turned with great quickness, towards the slightest noise. His discourse was faltering and somewhat incoherent, and his manner timid and suspicious.

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He

He was unwilling to own his aversion to water, and was desirous to be told, that the dog was probably not mad. His pulse was weak and irregular; his tongue white; his evacuations were natural.

When I desired him to drink a little water, he shewed strong marks of disgust, but with some encouragement, was prevailed on to make an effort. As soon as he took hold of the cup, I perceived some spasmodic contractions of the muscles of deglutition; when he raised it towards his mouth, the muscles on the cheeks were strongly contracted, and a sort of convulsive gulping came on. He threw some of the water into his mouth, in a great hurry, but it was returned at first; a small quantity at last got down, with a violent struggle on the part of the patient, who extended his arms, and clenched his hands, while it was passing.

ing. Deglutition was attended also with considerable, irregular noise in the oesophagus. The admission of cold air into the room gave him similar uneasiness. When the outer door was opened, he immediately put up his hand to the anterior part of the throat. When asked where the impression was felt, he pointed to his throat, immediately under the thyroid cartilage. He always swallowed solids with great ease.

The scar on his cheek, which was between the ear and the angle of the jaw, but rather more advanced, was hardly discernible. He felt no kind of uneasiness in it, and there was no discoloration. His wife remembered to have seen it bloody. He was about thirty-nine years of age, and had been very sober and industrious. I sent him to the infirmary immediately, and ordered him to take a bolus, containing

a scruple of bark, six grains of musk, and half a grain of opium. He was immersed in the cold bath, and was urged to swallow, as often as possible, a draught of vinegar and water. I was informed that the sound of water distressed him, and being desirous of ascertaining the fact, I directed a large jar to be emptied in the adjoining passage. He was evidently alarmed, and begged to be sent home, but would not acknowledge that he was afraid of water.

At five o'clock in the afternoon, we met in consultation, when the horror of water, and difficulty of swallowing liquids, were ascertained in presence of all the physicians to the house. It was now late in the fifth day of the disease, and the patient was evidently much enfeebled. We had therefore nothing to expect from medicine, but it seemed right to attempt whatever the situation of our patient could justify.

We

We agreed to scarify the cicatrix on the cheek deeply, and to apply a blister over the incisions; a bolus, containing a scruple of bark, fifteen grains of musk, and two grains of opium, was directed to be given every four hours; two drachms of strong mercurial ointment were rubbed in upon the throat, arms and groins; a mixture of eight ounces of distilled vinegar, and twelve ounces of decoction of bark, was ordered, of which three or four table spoonfuls were to be given as frequently as possible; and a poultice, consisting of three drachms of galbanum, two scruples of opium, and one drachm of camphor, was applied, after the mercurial friction, to the throat.

About nine o'clock, the same evening, I saw him again. He had swallowed his medicines without much reluctance, but was incoherent, and complained greatly of cold.

During the night, his delirium increased; he was restless, impatient and intractable. He had never shewed any disposition to injure the people about him, but he now threw himself out of bed, and resisted the keeper who attempted to replace him, so that it was necessary to apply the strait waistcoat. However, he took four boluses, and swallowed more than a pint of his mixture. He had one stool before morning.

At nine o'clock on Saturday morning, the sixth day, we met again in consultation. We found that his difficulty in swallowing liquids was less; he had taken some very thin porridge, the usual breakfast of the house; and he drank several mouthfuls of his mixture in our presence, without any striking appearance of disgust. But his eyes were heavy and inclined to fix; his pulse was much sunk; and there
was

was a constant tendency to low delirium. We therefore concluded that the termination of the disease was near; but agreed that the method we had adopted should be pursued, while he was capable of swallowing. Before I left him, he retched several times, and brought up some wind: half a grain of emetic tartar was directed to be added to his next bolus, but he did not live to take it. At a quarter past ten he swallowed some of his mixture, and immediately after threw up part of it again. He then fell into convulsions, and died in the course of a few minutes.

I was very desirous to have the body examined as early as possible, that the appearances attending this dreadful disorder might be fairly ascertained; the inflammation of the stomach, described in former dissections, having been often attributed to the action of

the gastric juice. Accordingly, the body was opened by Mr. Simmons, at a quarter before three o'clock, on Saturday afternoon, in presence of most of the physicians and surgeons to the hospital.

In the brain, the only præternatural appearance was, a distention of the pia mater, on the surface of both hemispheres, with a limpid fluid. The quantity of fluid in the lateral ventricles, at the basis of the brain, and round the spinal marrow, appeared to be somewhat unusual.

In the thorax, the lungs were uncommonly sound, excepting one slight adhesion at the posterior part of the left lobe. The trachea was perfectly sound. The pericardium adhered pretty firmly to the heart, in its whole compass.

In the abdomen, the stomach and intestines seemed, externally, sound; but on opening the lower part of the œsophagus, a morbid appearance presented itself. About two inches above the cardia, the epidermis of the œsophagus was abraded in irregular points, and exposed an inflamed surface of a dark red colour; still lower, the abrasions became linear, and extended into the stomach itself. The edges of the epidermis, surrounding the abrasions, were unequal and elevated. A similar affection was traced along the lesser curvature of the stomach, but growing fainter in its progress, to the pylorus, where it was least discernible, and about which it seemed to terminate. The whole of the inflamed parts bore a striated appearance, resembling the effect of corrosion, darkest in the œsophagus, and lighter and more indistinct towards the pylorus. The stomach was half full of a dark-coloured fluid, which smelt
strongly

strongly of musk. The other viscera were in a natural state.

The length of time which intervened, in this case, between the bite and the appearance of the disorder, was nearly the space usually observed. As almost every circumstance of so dreadful, and so intractable a disease is regarded with wonder, this interval has always been marked as a striking peculiarity. It is well known, however, that the action of morbid contagion on the system is always delayed for a certain time after its introduction. In the infection of fevers, the interval often consists of many days, and has even been said to have extended to three weeks. The venereal poison, applied to the urethra, has been known to produce a gonorrhœa, after an interval of a fortnight; and some days always elapse before it exerts that action. The fact respecting hydrophobia

is

is therefore not singular in its nature, although the duration of the interval is unusually long.

As the principal morbid appearance in this body, was a peculiar inflammation of part of the stomach and oesophagus, not sufficient to account for the death of the patient, I apprehend that we must still consider hydrophobia, as a nervous disease, of unknown nature. I believe we may fairly consider the appearances I have described, as the proper effects of the disease, since four hours and a half only elapsed, between the death of the patient and the dissection; especially as the stomach contained a considerable quantity of fluid. It is evident that such a state of the oesophagus, joined to an increased irritability of the system, affords an easy explanation of the peculiar sensibility to cold water and cold air. But the general disorder has been known to exist

exist without this remarkable symptom;* the dread of water, therefore, which has been always considered as constituting the diagnosis, is in reality only the symptom of a symptom. It must be observed, however, that in Dr. Vaughan's two cases of hydrophobia, though the dread of water had been felt by both his patients, no inflammation of the œsophagus or stomach appeared on the dissection of either. Indeed the case before us shews, that the terror of water does not originate from the local inflammation alone, for the patient was able to swallow liquids for some hours before death, though the inflammation was certainly existing, and perhaps proceeding at that time. The cessation of this symptom a short time before death, which has been observed in some other cases,

* Mead on the Bite of the Mad Dog. Lieutaud, *Precis de la Médecine pratique*, Art. *Hydrophobia*.

is therefore probably owing to the decrease of irritability. The ease with which solids were swallowed by this patient, admits an obvious explanation. In the diseased state of the œsophagus, the comparatively small degree of contraction, necessary for the descent of animal food, is performed without difficulty. For the deglutition of liquids, a very strict contraction is required, which strains and irritates the inflamed parts, and consequently occasions great distress.

In the total want of discriminating characters of the general affection in hydrophobia, it is no wonder that recourse has been had to analogy; though the fallacy of that method is remarkable in nothing more than in pathological discussions. The close resemblance between this disorder, and some cases of tetanus, has been fully established by Dr. Percival and Dr. Rush, and perhaps this important parallel includes the

the principles, on which hydrophobia may at some future period be treated with success. The facts now ascertained, of this disorder arising sporadically, and of its having proved a consequence of simple wounds, or other injuries done to the extremities, without the intervention of any virus, while they prove that hydrophobia is not always the effect of a specific poison, afford room to hope that it may yet be cured, without the discovery of a specific antidote.*

The prevention of hydrophobia, I apprehend, is only to be expected from the immediate destruction of the bitten part. This may be effected, either by excision, or by exploding with gunpowder. Perhaps it would be better, afterwards, to promote the ulceration of the surrounding parts, by cantha-

* On these points my sentiments are now considerably altered.
See Vol. 3, Art. Hydrophobia,

rides, than by the usual method of caustic. The action of the latter may be too slow to answer the purpose. That the exhibition of internal remedies, or the use of simple external applications, should have been supposed to prevent the accession of hydrophobia, can excite no surprise, when it is considered, that a small proportion only of persons really bitten by a mad animal, is liable to suffer the disorder,* even when the bite is effectually inflicted, with the infusion of the saliva; that many circumstances may attend the effort to wound, which may obviate its danger; and that the madness of the animal is too frequently left a subject of conjecture.

When the disorder is ascertained, very opposite methods of cure, supposed to have been successful at different times, offer themselves to the mind of the

* See Dr. Fothergill's Case of Hydrophobia, p. 23.

practitioner. On one hand, large and repeated bleedings, succeeded by considerable doses of musk and opium on the other, mercurial frictions and the warm bath; while the probable analogy between this disease and tetanus, impresses the advantages of cold bathing, and the most powerful tonics.

In different seasons and countries, the degree of inflammatory tendency, in hydrophobia, may be very different; but as a state of extreme irritability always seems to accompany its advanced stage, I should conceive blood-letting, at least when repeatedly used, to be a very doubtful remedy. In my patient, it was prohibited by the state of the pulse, the advanced period of the disease, and the free use which had been previously made of it.

Opium affords a less equivocal assistance, and is indeed strongly indicated
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in the confirmed state of hydrophobia. The analogy of tetanus appears to encourage expectation from this remedy; but in a disease which, like hydrophobia, exhausts the powers of life so quickly, opium cannot, perhaps, be safely given to an equal extent. It may probably do most service, in combination with a tonic course.

The large use of mercurial frictions is said to have proved successful, in this disorder. This method was perhaps originally suggested, by the determination to the salivary glands, so remarkable in the course of the complaint. If sufficient time were granted for the action of the mercury, I should have great doubts respecting its operation. Why should irritation so powerful be added, in a state where excessive irritability is the principal complaint? The tendency to inflammation in the

R

stomach

stomach and œsophagus, appears also to contra-indicate the use of mercury.

The use of the warm bath was found to give great relief, in the case related by Dr. Fothergill. Perhaps, when the inflammatory symptoms run high, and when rigid spasms take place, a long-continued immersion in the warm bath may, as in other spasmodic disorders, prove beneficial.

But if the analogy traced between hydrophobia and tetanus may be trusted, we must in general expect the cure of this disorder from the free employment of bark and cold bathing, joined with an ample, but judicious exhibition of opium. At all events, a fixed mode of practice should be instituted in every case; and the practitioner ought not to take off from the power of any one course, by mixing it indiscreetly with other methods.

The

The efficacy of oil, largely used, both externally and internally, has been lately asserted in this distemper. Lubricating applications may sometimes quiet the irritation, in the inflamed œsophagus, and are therefore not to be overlooked. Oil will also be more readily swallowed than other liquids.

A thin mixture of vinegar and bran is said to have cured some animals of hydrophobia, in France. If patients can be induced to swallow such a mixture, there can be no objection to it. Perhaps the admixture of something approaching to solidity, like bran, may render deglutition easier. As we have reason to conclude that some degree of inflammation subsists, whenever hydrophobia comes on, it will be proper to use some means of removing it. The application of blisters to the throat may therefore be adviseable; and if the patient could bear the steam of

warm water, it might be inhaled with advantage, after lubricating the fauces and œsophagus by giving a mouthful of oil. The dreadful resolution of destroying a hydrophobic patient can never be necessary for the safety of the attendants, and is not justifiable upon any principle in the medical superintendants. I believe it is a very false idea, that persons in such unhappy circumstances attempt to injure the bystanders. Timidity, on the contrary, seems the prevailing feature of the disorder. And obedience can at all times be commanded, by the strait-waistcoat even when convulsive motions are apt to come on. I fear it is not unnecessary to add this caution to the rest; for I remember an instance of such a resolution, executed with circumstances of peculiar barbarity, on a poor child, about nine years ago, by the direction of the medical attendants, a few days after the sufferer was seized with hydrophobia.

ORIGIN OF

CONTAGIOUS AND NEW DISEASES.

In popular questions, the topics of discussion frequently arise from particulars of the smallest importance. While innumerable methods are proposed for supporting the poor of this nation, with the least possible expence, it has not been sufficiently explained to the public, that their present situation is extremely dangerous, and often destructive of health and life, to the middle and higher ranks of society. The poor still labour under those hardships which appear to have occasioned the frequency of pestilential diseases,

in earlier states of society. Their habitations are scanty, close, and filthy; the comforts of frequent change and renewal of apparel are unknown to them; their food is often inadequate to their exertions; and this circumstance, joined to the mortifying sense of their condition, produces a continual depression of spirits, out of which they can only be roused by the use of strong liquors. From these causes result consequences so extensively and dreadfully felt, that it will be proper to strengthen my assertion of them, by shewing that I adhere in it to the opinions of the best writers. Most of the ancient writers agreed that new diseases were frequently arising. Barchusen, in his chapter *de Morborum Novitate*, says, "*Plerique veterum inter se conveniebant, pauca intercedere, sed plura morborum genera indies exoriri.*" This is not true of the small-pox and measles only, which appeared

appeared in the middle age, or the lues, sudor anglicanus, and other diseases well known to be of late date, but the time when hydrophobia and elephantiasis were introduced into Europe is marked by Celsus* and Pliny;† Plutarch agrees with them, in the traditions relating to these diseases.‡ Dio Cassius§ mentions a new disease contracted by the Roman army in Arabia Felix. Another disorder, the lichenæ, or mentagra, which is now lost to us, (if it has not degenerated into the cynanche parotidæa, or MUMPS) was imported from Asia to Rome, and raged among the nobility, according to Pliny.¶ That shocking

* Lib. III. cap. xxv.

† Lib. XXXVI. cap. i.

‡ Symposiac. 8. Quest. 9. Cælius Aurelianus, however, says, that hydrophobia was previously known, but by a different name. Lib. III. cap. xv.

§ Lib. LIII.

¶ Lib. XXVI. cap. i.

disorder, the *plica polonica*, made its first appearance in the last century. Claudinus asserts this, in his *Practice of Physic*, and I have seen (I think, in the curious treatise of Joannes Tardinus *de Pilis*) a copy of the application made by the Polish Physicians to the university of Paris, in which they describe the disease as new, highly epidemical, and baffling every effort for its cure.

Glisson assures us, in his treatise on the subject, that the rickets were first known in England, thirty years only before he wrote. Barchusen confirms the opinion of its being a new disease, confined to the western parts of this island. The croup was notoriously a disease unknown to physicians, within these thirty years, and is still confined, in a great measure, to the eastern coast of the kingdom. The leprosy was described, a few years ago, as a very acute
and

and fatal disorder, in one of the provinces of France; the yaws, the sibbens, and other national infectious disorders, afford strong proofs of the variety of animal poisons, and Mr. Hunter, in his excellent book on the Lues, has given good reasons for believing, that new poisons are now produced among the poor of great cities.

The diseases arising from wretchedness, differ in this respect from those of luxury; the first are generally infectious, the latter solitary, but hereditary. This observation would furnish an excellent moral, but as it is needless to suggest it, I pass on to my next point.

All infectious animal poisons, that of the hydrophobia excepted, appear to be formed originally from the human body. This has been the opinion of almost every medical writer, since the

the publication of Sir John Pringle's book on the diseases of the army. Many separate facts of old date, had pointed out the truth, but, till the distresses of camps and hospitals presented it to that attentive physician, they were neglected and useless, like many valuable passages in the writings of the old physicians.

The facts to which I allude, relate to the first plagues of Athens and Rome. Thucydides and Plutarch ascribe the former to the multitudes of rustics, introduced into the city by Pericles, and crowded together in huts, within the walls. Livy imputed the first plague of Rome, to the number of inhabitants penned up in its narrow limits.

The opinions of physicians have been strangely divided, on the origin of infectious fevers. If, as Sydenham has asserted, the species of epidemics be
infinite,

infinite, such differences might have been expected; but a comparison of accurate descriptions (which are not very common, however, in medical books) does not confirm his opinion; and it is more probable, that all explanations being unsatisfactory, authors equally felt the impossibility of acquiescing in any one.

As an acquaintance with opinions unhappily forms a large share of human knowledge, it is necessary to mention some of the principal theories relating to the rise of PLAGUE and PESTILENTIAL FEVER. I place these together, for I apprehend the plague to be a fever, attended with some unusual symptoms, chiefly produced by its violence. This opinion I have formed principally from Diemerbroek's Cases of Plague,* which have every character of

* Dr. Sydenham has industriously traced a resemblance between the plague and erysipelas, so far was he from considering the former as a peculiar disease.

accuracy, and are recommended by the experience and attention of that author, and by the good sense of his practice. And although the symptoms of eruptions and buboes be distinguished by individual characters in the plague, yet they do not depart, in their general type, very far from the symptoms of malignant fevers; for the latter are very commonly attended by flat eruptions, which physicians term petechiæ, and glandular abscesses are not unfrequent in them; although perhaps such abscesses are more rare at present, than they were two centuries ago.*

Diemerbroek,

*---Plurimi, sique non vulgares medici, in eam venerint sententiam, pestilentiam nihil aliud esse, quam febrem summæ putridam, ac putredinis quodam gradu excellentiore solùm ab aliis putridis differentem. Sennert. tom. II. cap. cxxxi.

Hence Dr. Cullen's definition of the plague:

"Typhus, cum summa debilitate,"

It

Diemerbroek, Dr. Willis, and some other eminent medical writers of the last century, supposed the plague to be always an infliction from the Deity: others, as Plempius, and some philosophers, of whom it is only necessary to name Lord Verulam, believed it to be caused by demoniacal influence.

Nec poterant quibus id fieret cognoscere causis.
Ergo perfugium sibi habebant omnia divis
Tradere.

LUCRET. lib. V. 1191.

It was a question among the physicians of the last century, whether the plague could exist without a fever. This was owing, evidently, to the rapidity with which the disease destroyed, in some cases. Diemerbroek, in his forty-first history, gives a case of a mild plague, similar to the instances we sometimes see of mild natural small-pox.

We must not suffer ourselves to be deceived by names. *λοιμος*,
Pestis, *μιασμα*, only imply destruction or depravation.

Mr. Holwell, and the other sufferers who escaped from the black hole, in Calcutta, underwent in consequence, a fever which in its crisis resembled the plague.

With

With respect to secondary causes, pestilential fevers were commonly supposed to be produced by a certain state of the atmosphere, which was considered as loaded with the poison. To this supposition Mercurialis properly objected, that if the whole atmosphere were contaminated, no person could escape the disease. Sennertus therefore imagined, that the poison was only dispersed in different parts of the atmosphere. More accurate observations have proved, that the disease is propagated by contagion alone, and this might have been fully learnt from Diemerbroek's facts, though that author held the contrary opinion.

It was allowed, however, (excepting by Sydenham) that the sensible state of the weather had very little connection with the appearance of the plague, as there were examples of its being introduced in all kinds of seasons.

Sydenham

Sydenham owns, that besides the secret constitution of the air, infection is necessary to produce the plague. Some physicians believed, that particular aspects of the planets occasioned the plague. The conjunction of Jupiter and Saturn was reckoned particularly inauspicious: I remember that about eight years ago, a pamphlet was published, foreboding a pestilence, among other calamities, from that event. There were some other idle opinions,* more held by philosophers than by the faculty, such as the production of the disease by ointments; which is admitted by Diemerbroek, with this necessary qualification, that the chief ingredient must be the contagious matter. But the principal secondary

* That of Paracelsus is the most curious and extravagant. He supposed that when a man, thinking of the plague, looked on the moon, he infected that planet; and that the archeüs, taking fright at the moon's appearance, became frantic, and thus produced the symptoms of the plague.

cause, acknowledged by almost all writers, and by some constituted as the essence of the disease, was putridity. The ancients appear to have acknowledged no difference between the putrefaction of the living and the dead body, and this important distinction is too much neglected by modern writers. Living putridity is only marked as *excellentiore gradu*, excepting a writer mentioned by Sennertus, Thòmas Minadous, who held, that in the plague there was not proper putridity, but putridity *secundum quid*; and Frederick Hoffman, who has expressly distinguished them, but by a theory of little value: he supposes living putridity to consist in the corruption of the lymph, and dead putridity in the corruption of the blood.

The distinction between them is very obvious in some disease: the last degree of putrefaction, the absolute death

death of the solids, is so far from being the last stage of pestilential disorders, that it is a favourable symptom in typhus when the nails and extremities of the fingers mortify: patients commonly recover with this appearance, which is the NECROSIS of Sauvages. And I have been informed, by a very respectable friend, who now occupies the anatomical chair in one of the universities of a neighbouring kingdom,* that while he assisted in the late Dr. Hunter's dissecting room, he observed that bodies marked with petechiæ, therefore probably dead of malignant fevers, did not putrefy so soon as those which were entirely free from petechial appearances. I shall have occasion to observe afterwards, that the poisons produced by these two different kinds of putridity are communicated, generally, in different

* Since this essay was written, the public has lost the gentleman alluded to, Mr. Hamilton of Glasgow.

ways, and give rise to very different symptoms.

It is a general opinion, that pestilential disorders are occasioned by the effluvia of dead bodies, but there is reason to question the truth of this. When plague has appeared, in the neighbourhood of places where many bodies had remained unburied, after general engagements, other causes can be pointed out, as more likely to have produced it. But many instances can be produced, in which thousands of dead bodies have been left to putrefy on the field of battle, without causing pestilential distempers. This was not unnoticed by the attentive Diemerbroek. "*Cadavera, sive hominum,*" "says he, "*sive aliorum animalium*" "*putrescentia pestem non generare, docent multæ magnæ strages, in quibus*" "*talis cadaverum inhumatorum putrefactio nullas pestes induxit.* Anno
" 1642

“ 1642 in agro Juliacensi, maxima
“ strages facta est, et ad minimum
“ 8000 militum, occisa fuerunt, præter
“ majorem adhuc famulorum, rustico-
“ rum, aurigarum, puerorum & mu-
“ lierum numerum, atque equorum
“ copiam innumerabilem; corpora in-
“ humata sub diu computruerunt, nulla
“ tamen pestis insecuta est. Hic in
“ Germania, durantibus his nostri ævi
“ crudelissimis bellis, etiam plurimæ
“ maximæ strages factæ sunt, post mul-
“ tas tamen illarum nulla peste sub-
“ sequente.” (p. 31.). These facts are
strengthened by a well known circum-
stance, that in no case could the origin
of a putrid fever be ever traced to the
effluvia of dead bodies in a dissecting
room. Nor have fevers been observed
to originate, or to rage more severely
in houses surrounding church-yards, in
the middle of large towns, though the
stench of the putrid bodies, over-heaped
in such receptacles, is often insufferably
S 2 offensive.

offensive. It is true, that the putrefaction of dead bodies generates a poison, which is highly noxious when received into the living body, by a wound, or any raw surface, but this poison does not seem to infect, like that of fevers, by exhalation, and its first effect (unlike the other) is to occasion the death of the part where it is admitted.

It must not be concealed, that noxious effluvia frequently arise from putrefying bodies, in a certain state.* Dr. Monro mentions a remarkable instance of this, in his Treatise on the Dropsy, and some later examples are recorded by Mr. St. John. But it does not appear, that in the cases he mentions,

* It appears, from some late observations, made on altering the vaults of a church, in France, that the *confined effluvia* of putrid bodies produce fever, when brought into action. Perhaps this is the solution of the question.

the noxious effluvia produced any symptoms resembling those of pestilential fever; on the contrary, they acted by direct stimulus, occasioning inflammatory complaints, from which we may conclude, that they are essentially different from febrile contagion.

Diemerbroek inclines to think that the plague may be produced by putrid food, but the instances he produces are chiefly those of long sieges, where other causes concur in occasioning fevers; and his principal example, the plague of Marseilles, during its siege by Trebonius, fails him; for Cæsar does not say that the Massilians used putrid food, but stale and spoilt corn, which only afforded imperfect nourishment: “Gravi etiam pestilentia conflictati,
“ex diutina conclusione, & mutatione
“victus (panico enim vetere, atque
“hordeo corrupto omnes alebantur;
“quod ad hujusmodi casus antiquitas
S 3 “paratum.

“paratum in publicum contulerant.”
Bell. Civil. lib. II. cap. xxii. 1.

It is now generally allowed, that the effluvia of living persons, confined in close situations, produces the poison of fever. This has been too fatally proved by the mortality in jails and hospitals. Want of cleanliness certainly produces the same effects; for I have known a pestilential fever produced in a new-raised regiment, in quarters where regular troops are always very healthy, and where there is a constant ventilation of the briskest kind.

It is peculiar to the animal poisons, that they not only give rise to a disease similar to their original, but that, however small the quantity applied, they convert a large portion of the fluids to their own nature. Several questions arise on this subject.

1. Does contagion operate immediately on the nervous or circulating systems? From the suddenness of the attack, in many cases, after exposure, it is commonly, and I believe justly, supposed to act immediately on the nervous system.

2. Does it operate by contact only, or *ad distans*? This question once divided the medical schools; but from a variety of facts, and particularly from those of Diemerbroeck, I think it tolerably evident, that the contagion of fever may be propagated by an impression on the olfactory nerves. It is usual for persons to complain of an intolerable smell about the sick, when they receive infection. This mode of infection, indeed, is resolvable into contact.

3. Does contagion produce both putridity and contagious matter? This question was never considered. by those

who made the essence of pestilential fevers consist in putridity. At present, we know that a patient, labouring under a simple nervous fever, without any symptoms of putridity who communicates the disease to two different persons, may give to one a disease exactly like his own, and to the other a putrid fever. And the putrid symptoms commonly appear so late, that they may be properly referred to the constitution, and reckoned accessory symptoms.

4. Does contagion assimilate all the fluids to its own nature? I think there are strong objections to the affirmative of this question.

a Because many phenomena, in the symptoms and cure of fevers, point out a spasmodic affection, or diseased action of the extreme blood vessels, as the real cause of fever. Ample proof of this may be found in the books of Piens, Hoffman,

Hoffman, and Dr. Cullen. This affection is supported by the action of the contagion, and perhaps is strengthened as more contagion is produced. If all the fluids, then, were converted into a contagious mass, no patient could recover from a fever of a fortnight's continuance.

b Neither would a patient, after recovering from a nervous fever, cease to infect others, till the whole mass of his fluids were changed.

c Nor would pestilential diseases be so speedily cured, as we often see them, by throwing in a small quantity of bark and wine, which can only be supposed to act, by checking the morbid state of the moving fibres. Another question, connected with this, and illustrative of it, is, whether the dead body of a person destroyed by a plague or fever, be capable of communicating

nicating infection. On this subject, facts are wanting. Rondeletius (as quoted by Sennertus) asserted that he had dissected bodies dead of the plague, in presence of many of his pupils, with perfect safety. Diemerbroek is of opinion that the dead body may infect, while it continues warm. If it be true, that only a part of the animal fluids is rendered contagious, when the patient dies, the exhalation of poison must be stopped by the extinction of the disease. Many physicians of the last century, and Diemerbroek among the rest, however, believed that the putrid dead body was more infectious than the living patient.*

5. It is an important question, whether the contagious matter can be

* Forestus thought the dead body less infectious. Hoffman. de venen. Corp. Human. tom. I. p. 203. See Garmann De Cadaverum Contagio, on this subject, from p. 363 to 371.

destroyed,

destroyed, as it issues from the body. If, as Mr. St. John imagines, the poison of fevers is a peculiar *gas* exhaled from the surface, some fortunate discovery may possibly furnish us with the method of neutralizing it, so as to prevent it from infecting the patient's assistants; but experiments are, perhaps, both too hazardous and too difficult, in this case.

The sources of pestilential disorders, then, of dysenteries, and some of the worst cutaneous disorders, have been sieges, camps, jails, and hospitals. The plague itself appears to originate with the crowded inhabitants of the miserable villages in the east.

It is a fact equally alarming and true, that many persons in indigent circumstances, are exposed, in our great towns, to such evils as I have shewn to be productive of febrile contagion, and
probably

probably of new diseases. The degree of misery, existing even in manufacturing towns, is only to be credited by those who have witnessed it. The poor are indeed the first sufferers, but the mischief does not always rest with them. By secret avenues it reaches the most opulent, and severely revenges their neglect, or insensibility to the wretchedness surrounding them.

In all unhealthy seasons, and times of public distress, the poorer members of the community are most deeply injured, and most easily affected by the causes of disease; all the methods of guarding against infection, or of destroying it where it has once entered, are to a certain degree expensive, and require, besides, an activity not to be expected from the sullen indolence of the poor. Their want of knowledge, and want of foresight also incapacitate them from any effectual struggles against epidemics.

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In all these situations, the circumstances which seem, from our inquiry, to produce animal poisons, are, as I have already said, those to which the poor are still exposed.

These circumstances are,

I. Want of fresh air.

II. A deficient or improper diet.

III. Want of cleanliness; and chiefly want of a proper renewal and change of clothes.

IV. Anxiety and depression of spirits.

I have placed the last among the efficient causes, because it is not proved that the mere confinement of the effluvia of clean and healthy persons, free from mental uneasiness, can become poisonous; otherwise the close rooms

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of an elegant house might produce fevers, as well as garrets and cellars;* besides, it will be readily admitted as an efficient cause, by those who have observed the changes in sores, or stumps, occasioned by passions of the mind. Dr. Hoffman gives an instance, from his own knowledge, of death produced by the bite of a man highly enraged, in consequence of the poisonous nature of the saliva. That the poor perpetuate animal poisons, cannot be doubted. When a fever either

* Upon this passage, a writer in the *Critical Review* for December 1792, made the following remark; the candour, honesty, and propriety of which, I leave to the censure of the reader.

“ Among the remoter causes of fevers, Dr. Ferriar does not advert to one distinction: it is not the confinement of clean healthy persons that occasions fevers, but the crowded small apartments of dirty ones, though depression of spirits undoubtedly contributes to its power.”

In return for several obligations of this kind, which I have received from the writers in this journal, so eminent for its scurrility, I shall only say, in the words of Parnes Adams; “ Whoever they are, may God forgive them, and bestow on them a little more sense, as well as humanity.”

arises,

arises, or is introduced into the house of a poor person, every circumstance favouring its progress, it generally attacks the family in succession: their clothes, and the woollen and cotton parts of their furniture become infected, retain the infection tenaciously, and are capable of communicating the disease for a long time. These they can neither afford to purify or destroy. Thus their dwellings and persons continually breathe contagion; and where this is the situation, not of one family only, but of a very great number, it is hardly possible to prevent the communication of the disease to the families of the rich, among whom it would never have been produced.

We are told by Diemerbroek, that it was a common practice in Italy and France, when the plague appeared in any large town, to drive out the poor immediately;

immediately ;* so fully were the magistrates convinced that the disease was preserved and propagated by them. It is well known that a nervous fever of the worst kind is rendered endemical in Edinburgh, by the practice of mewing up families in small subterraneous dwellings, where the contagion is constantly reproduced. The cellars so frequently inhabited, in this place, are better ventilated than those of Edinburgh, but may become pernicious also, when age shall have rendered them equally dirty. I have known a nervous fever, which was putrid also in many cases, preserved in a small town, for almost two years, among the poor alone. The manner of building practised there was evidently the cause. The principal streets are wide, and laid down at right

* At the commencement of the plague of Marseilles, all beggars were ordered to quit the town: Account of the Plague of Marseilles, 1721.

angles; but the poor are pent up in small houses, huddled together in narrow alleys, which are commonly shut up at one end. But one of the most satisfactory instances of this sort, was observed by Dr. Heysham, at Carlisle, in 1778 or 1779. A fever of the nervous kind raged in that city, which did not seem to have been introduced from any neighbouring place. Dr. Heysham, with great industry, traced its origin to a house near one of the gates, which was tenanted by five or six very poor families; these unhappy creatures had blocked up every avenue of light (as Dr. Heysham expresses it) with which even wretchedness could dispense, to lessen the burden of the window-tax, and thus contaminated the air of their cells, to such a degree, as to produce the poison of fever among them.

Thus it appears, that the safety of the rich is intimately connected with
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the welfare of the poor, and that a minute and constant attention to their wants, is not less an act of self-preservation than of virtue. For we are not only exposed now, to the ravages of disorders, the poisons of which are perpetuated in the abodes of misery, but we are threatened with the rise of new contagions, the danger of which cannot be foretold, nor perhaps the remedies easily ascertained. In this the true danger of luxury consists, which I think authors have too much overlooked: the excesses of an individual, in their direct consequences, affect only himself and his family: but when voluptuous habits induce him to withhold his real superfluities from the indigent, he contributes to the diseases and destruction of thousands.

Accident and misfortune have too often done those services to mankind, which

which wisdom would not have been permitted to render. The fire of London extirpated the plague in this country, and even the blow of an assassin once proved a salutary remedy.* Perhaps some such extraordinary circumstances must do for us, what it is in our power to do for ourselves, in disarming the virulence of animal poisons, by increasing the happiness of our fellow-creatures. To imagine, that by any human prudence, all misery (even from indigence) can be relieved, or all contagion destroyed, would be ridiculous; but as events, unexpected, or certainly not promoted with this view, have abated the frequency and violence of some epidemics, I see no reason to doubt, that prudence, by imitating such operations, may still farther lessen the evils of disease. In any event, a closer attention to the comfort of the poor,

* Schenk. Observat. Lib. 5.

than is commonly practised, is a desirable object of attainment; and it may excite the benevolence of some men, if they can be convinced, that acts of charity will not only serve them in another life, but promise them a longer enjoyment of the present.

END OF THE FIRST VOLUME.